FINAL DRAFT CUMULATIVE IMPACTS ANALYSIS REPORT SOUTHEAST WASHINGTON COALITION SHORELINE MASTER PROGRAM UPDATE

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Prepared for

Counties of Asotin, Columbia, and Garfield, City of Clarkston, and Town of Starbuck

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LIST OF ACRONYMS AND ABBREVIATIONS

CIA	Cumulative Impacts Analysis
Coalition	Counties of Asotin, Columbia, and Garfield; City of Clarkston; and Town of Starbuck
CWA	Clean Water Act
DNR	Washington State Department of Natural Resources
Ecology	Washington State Department of Ecology
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
HPA	Hydraulic Project Approval
IAC	Inventory, Analysis, and Characterization
LWD	large woody debris
NOAA Fisheries	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
OHWM	ordinary high water mark
RCW	Revised Code of Washington
SDP	Substantial Development Permit
SE WA Region	Southeast Washington Region
SMA	Shoreline Management Act
SMP	Shoreline Master Program
USACE	U.S. Army Corps of Engineers
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WQC	Water Quality Certification

1 INTRODUCTION

1.1 Report Purpose

The counties of Asotin, Columbia, and Garfield along with the City of Clarkston and Town of Starbuck, have formed the Southeast Washington Region (SE WA Region) Coalition (Coalition)[1] to update its Shoreline Master Programs (SMPs) in compliance with the Washington State Shoreline Management Act (SMA) and adopted state shoreline management guidelines. This work is funded by a grant from the Washington State Department of Ecology (Ecology). A primary purpose of this effort is to update the SMP to comply with the Chapter 90.58 Revised Code of Washington (RCW), the SMA, and Ecology's 2003 Shoreline Master Program Guidelines (Chapter 173-26 Washington Administrative Code [WAC]).

The guidelines require the Coalition members to demonstrate that the updated SMP will result in no net loss to shoreline ecological functions during implementation. Developing this conclusion requires an examination of projected future development, how this development may risk ecological function, and regulatory and non-regulatory actions, including restoration plans, which can influence this risk. Potential extreme weather or climate events, such as floods or large-scale forest fires, may also affect implementation of the SMP, shoreline ecological function, future development potential, and the relative success of restoration plan implementation. However, due to the unpredictable nature of these events, the cumulative impact analysis presumes no such disruptive events occur. Separate planning actions would likely follow such events if they were to occur and be considered in future SMP update processes.

WAC 173-26-201(2)c provides this guidance for protection of ecological functions of shorelines:

> *"Master programs shall contain policies and regulations that assure, at minimum, no net loss of ecological functions necessary to sustain shoreline natural resources. To*

[1] In this report, the phrase "SE WA Region" refers to the area covered by this SMP update. The term "Coalition" refers to the counties of Asotin, Columbia, and Garfield, the City of Clarkston, and the Town of Starbuck. The Cities of Asotin (Asotin County) and Dayton (Columbia County) are updating their respective SMPs through separate planning processes.

achieve this standard while accommodating appropriate and necessary shoreline uses and development, master programs should establish and apply:

- *Environment designations with appropriate use and development standards; and*
- *Provisions to address the impacts of specific common shoreline uses, development activities and modification actions; and*
- *Provisions for the protection of critical areas within the shoreline; and*
- *Provisions for mitigation measures and methods to address unanticipated impacts.*

When based on the inventory and analysis requirements and completed consistent with the specific provisions of these guidelines, the master program should ensure that development will be protective of ecological functions necessary to sustain existing shoreline natural resources and meet the standard. The concept of "net" as used herein, recognizes that any development has potential or actual, short-term or long-term impacts and that through application of appropriate development standards and employment of mitigation measures in accordance with the mitigation sequence, those impacts will be addressed in a manner necessary to assure that the end result will not diminish the shoreline resources and values as they currently exist. Where uses or development that impact ecological functions are necessary to achieve other objectives of RCW 90.58.020, master program provisions shall, to the greatest extent feasible, protect existing ecological functions and avoid new impacts to habitat and ecological functions before implementing other measures designed to achieve no net loss of ecological functions.

Master programs shall also include policies that promote restoration of ecological functions, as provided in WAC 173-26-201 (2)(f), where such functions are found to have been impaired based on analysis described in WAC 173-26-201 (3)(d)(i). It is intended that local government, through the master program, along with other regulatory and nonregulatory programs, contribute to restoration by planning for and fostering restoration and that such restoration occur through a combination of public and private programs and actions. Local government should identify restoration opportunities through the shoreline inventory process and authorize, coordinate and facilitate appropriate publicly and privately initiated restoration projects within their master programs. The goal of this effort is master programs which include planning

> *elements that, when implemented, serve to improve the overall condition of habitat and resources within the shoreline area of each city and county."*

Combined with the Restoration Plan, the Cumulative Impacts Analysis (CIA) Report is the final analysis step for the Coalition's comprehensive SMP updates. This CIA Report includes a brief introduction to the SE WA Region; a more detailed discussion of the setting is available through the Shoreline Inventory Analysis and Characterization (IAC) Report (Anchor QEA 2015). Also included is a discussion of anticipated development within the next 20 years; this is based on the land capacity analysis presented in the IAC Report, which is further refined based on the foreseeable rate of development within each shoreline reach during the next 20 years. Potential impacts to ecological functions from this development are identified along with provisions to address these impacts. Finally, based on all of these inputs, the anticipated future performance for each shoreline area is addressed. Overall, the CIA Report will serve to demonstrate that future development according to the proposed SMP will result in no net loss of shoreline ecological function in the SE WA Region.

2 SETTING

2.1 Regional Setting

The study area comprises Asotin, Columbia, and Garfield counties, which are located in the southeast portion of the state of Washington, and it includes the City of Clarkston and the Town of Starbuck. The counties of Asotin, Columbia, and Garfield are bordered by the state of Oregon to the south, the state of Idaho to the east, Walla Walla County to the west, and Whitman County to the north. A small length (0.7 mile) of the northwest portion of Columbia County is bordered by Franklin County. The City of Clarkston is located in the northeast corner of Asotin County with the Snake River bordering both the north and east. The Snake River also acts as the border between Washington and Idaho on the eastern edge of the City of Clarkston. The Town of Starbuck is located in the northwest portion of Columbia County, with the Tucannon River bordering the town to the west and south. The counties of Asotin, Columbia, and Garfield encompass a total area of 2,232 square miles (5,782 square kilometers), of which 2,213 square miles (5,731 square kilometers) are land and 19 square miles (50 square kilometers) are water.

The SE WA Region falls within the Palouse Blue Mountains region of Washington (NOAA 2015). Annual precipitation across most of the agricultural section ranges from 10 to 20 inches and can reach 40 inches or more in the higher elevations of the Blue Mountains. Snowfall typically starts in November and can continue until March, with snow remaining on the ground for periods ranging from a few days to 2 months. Average snowfall varies from 20 to 40 inches and increases along the slopes of the mountains.

Monthly average high temperatures in January can range from 34°F in the Palouse Hills and 38°F in the Snake and Walla Walla river valleys, with the average minimum temperature ranging from 20 to 25°F. Summer high temperatures are usually in the high 80s °F, with low temperatures in the middle 50s °F (WRCC 2015).

Existing land use throughout the Coalition's shoreline is primarily a mix of agricultural, residential, recreational, and commercial uses. There is also a significant portion of forest, grassland, and shrubland within the counties of Asotin, Columbia, and Garfield. A substantial portion of the shoreline land use is agricultural or residential. Residential areas

are mostly rural with low density, and agricultural land uses include livestock and dryland farming. Recreational uses are mostly located in parks and wildlife refuge areas under public ownership. Recreational uses are also available in privately owned land within the shoreline. Urban areas in the City of Clarkston make up a small percentage of overall land use. Several industrial and heavy industrial uses can be found on the Snake River, including areas where grain elevators are located next to barge-loading facilities and areas surrounding two hydroelectric dams.

Current land use designations and zoning are summarized in Table 1.

Table 1
Land Use Designations and Zoning

Waterbodies and Associated Tributaries	Land Use/Zoning		
	Asotin County	Garfield County	Columbia County
Asotin Creek	Rural residential, Ag/transition	NA	NA
Grande Ronde River	Rural residential	NA	NA
Snake River	Agricultural, Ag/transition, rural residential	Rangeland, cropland	Agricultural (A-1), heavy industrial (H-I)
Forest Service Creek Group	NA	NA	Watershed (W-1)
Touchet River	NA	NA	Agricultural (A-1), Ag-residential (AR-1), agricultural (A-2)
Tucannon River	NA	NA	Agricultural (A-1), agricultural (A-2),

Notes:
Ag = agricultural
NA = not applicable

2.2 Aquatic and Terrestrial Habitat Conditions

Habitat is the natural environment in which particular species or populations have adapted to live and which provides the physical conditions and biological functions needed to support the species as part of a larger ecosystem. Within the SE WA region, aquatic

conditions are impacted by dams and irrigation diversions, which effect water quality and water flows and prevent fish passage. Many floodplains in the SE WA region have been impacted by channelization, to reduce flooding, and by conversion to agricultural and residential uses. Most watersheds in the region have similar salmonid habitat limitations due to similarities in topography, geology, vegetation, and land use. Agriculture, grazing, logging, and development have impacted water quality through increased sediment loads and elevated water temperatures, decreased riparian condition, and caused major changes in channel form and function as a result of channelization and flood control measures.

An abundant and diverse community of priority wildlife species inhabits and utilizes shrub-steppe, riparian, and forested areas in SE WA counties and, to a lesser extent, the developed lands and agricultural areas. Large tracts of shrub-steppe habitat are diminishing in Washington due to ongoing habitat fragmentation and conversion, and have been identified by WDFW as priority habitats (WDFW 2013). Agricultural lands were developed through conversion of large amounts of shrub-steppe habitat but also included conversion of grasslands, forests, wetlands, and riparian habitat (WDFW 2013). Some estimates show available shrub-steppe habitat in the Columbia basin has been reduced by as much as 50% from historical conditions.

The watersheds in this region face stressors from land-use practices such as agriculture, logging practices, infrastructure development (including dams and levees), and residential and urban development. These activities have affected riparian conditions, altered channel forms and floodplains, and affected water quality. Important factors affecting recovery potential of the region include the lack of large woody debris (LWD), stream confinement, reduced riparian function, increased sediment, reduction in aquatic habitat complexity, altered flows, and high water temperatures (SRSRB 2011). For more information on habitat conditions and ecological stressors see Section 5 of the IAC Report (Anchor QEA 2015).

3 REASONABLY FORESEEABLE FUTURE DEVELOPMENT AND POTENTIAL IMPACTS TO ECOLOGICAL FUNCTION

3.1 Foreseeable Future Development

Asotin County has an estimated population of 21,950, based on 2014 Office of Financial Management data. From 2010 to 2014, the population growth is estimated at about 1.51% for Asotin County. Columbia and Garfield counties have estimated populations of 4,080 and 2,240, respectively. From 2010 to 2014, the population growth is estimated at about 0.05% for Columbia County. Population growth has declined for Garfield County from 2010 to 2014 at -1.15%. The City of Clarkston and the Town of Starbuck also have seen no growth in growth from 2010 to 2015, at 0.08% growth for the City of Clarkston and 0.77% growth for the Town of Starbuck (OFM 2015).

With this minimal development trend in the SE WA Region, it is anticipated that development would be further limited in the shoreline areas in the next 20 years due to the Federal Emergency Management Agency (FEMA) floodplain and steep cliffs along the shoreline. The future development potential within the SE WA Region is also limited by additional factors, such as recreational sites, areas under federal management for hydropower, and some shoreline areas that are extremely remote. Within the last 5 years, Asotin County issued ten Shoreline Substantial Development Permits (SDPs) and five exemptions; Columbia County has not issued any SDPs and issued five exemptions for single-family residential homes; and Garfield County has not issued any SDPs or exemptions for single-family permits. The last SDP issued in Garfield County was for the Central Ferry grain storage and barge facility (Anchor QEA 2015). In order to anticipate similar future development trends, 10% of total development capacity was used for Asotin County reaches, and 3% of total development capacity was used for Columbia County and Garfield County reaches to anticipate future development. These rates are much higher than the countywide growth trends; therefore, development in the future is unlikely to surpass these rates.

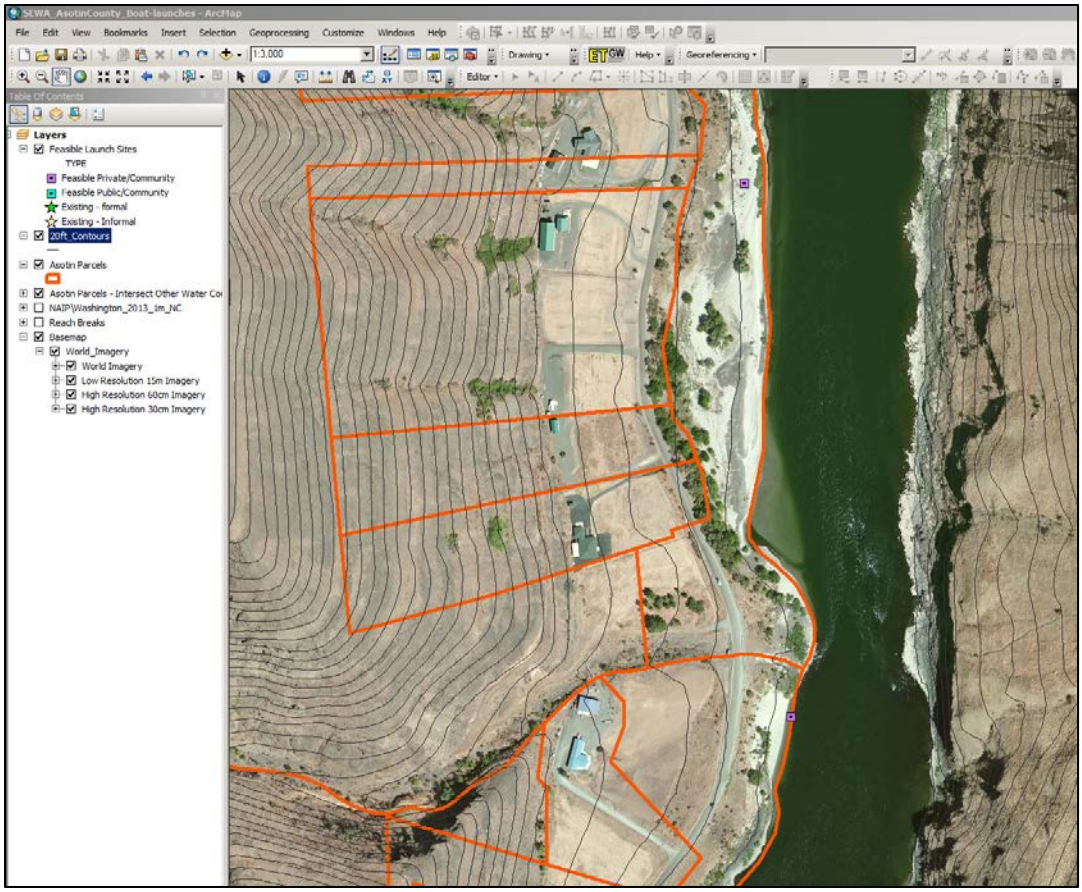
Future development would mostly include recreational improvements with limited new residential, commercial, and industrial developments throughout the Coalition area. Given higher population and development trends in Asotin County, additional evaluations were

completed to quantify recreational improvement potential for portions of the Snake and Grande Ronde rivers.

Recreational improvements on the Snake and Grand Ronde shorelines in Asotin County could include private and improved public boat launches based on the following criteria:

- One launch per parcel, and private ownership at the river must be demonstrated
- Parcel must be large enough to contain standard vehicle turnaround
- No private launches within 1 mile (via road) of formal public launch
- No launches within Natural Environment Designation lands

To refine the projected counts of new boat launches, Coalition members provided a reconnaissance of shoreline conditions in the fall of 2015 and early 2016, noting areas where existing development, accessibility, topography, and river velocity conditions would allow for development of additional launches. The number of potential launch locations was further refined through a desk-based analysis of parcel boundaries and property ownership using Asotin County GIS datasets.



Example Anchor QEA GIS analysis identifying feasible boat launch locations.

Anchor QEA used bird's eye aerial image and GIS to verify development potential.

Potential sites that could feasibly have the existing physical conditions to sustain a private launch were identified, totaling up to 44 potential sites. Some of these locations have existing homes, although other parcels are undeveloped. Next, the SMP provisions (with associated state and federal approvals needed) were reviewed, and how these might constrain or significantly limit new private launches was investigated. The existing private launches (one formal and a few informal) were also considered, as well as limited historical permit applications for private launches (one application is currently pending, and this is the first applied for in the past several years; Floyd 2016). This information was used to identify how many of the 44 potential sites might actually be permitted and constructed. Although it was perceived that there would only be a few future permit applications for a new private boat launch, based on the permitting constraints and history, up to 12 launches were evaluated in the analysis to bind more conservatively the cumulative effects. The reaches in which these potential launch sites could occur are described in Table 2.

Potential for future development is summarized in Table 28 of the IAC Report. Table 2 in this CIA Report presents a number of development indicators and details for each shoreline reach by the following environment designations:

- **Developable areas**: Presents the vacant areas either subdivided or not yet platted
- **Anticipated development**: Includes the anticipated residential, commercial, or recreational development in the next 20 years
- **Environment designations**: Identifies the environment designations for each reach tied to the anticipated development

Table 2
Coalition Shorelines

Asotin Creek and Associated Tributaries	
Asotin Creek: Reach 1	
Developable Areas: 692 acres	
Future Development Constraints: Asotin Creek Wildlife Area; shoreline in FEMA floodplain; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Rural	No development is anticipated.
Shoreline Residential	Two (2) new residential developments are anticipated.

Recreation	Potential recreational improvements in the Headgate County Park
South Fork Asotin Creek	
Developable Areas: None	
Future Development Constraints: 100% publicly owned; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Conservancy	Potential low-intensity recreational improvements (e.g., visual access) as part of WDFW's wildlife management plan for Asotin Creek; no other development is anticipated
North Fork Asotin Creek	
Developable Areas: 54 acres	
Future Development Constraints: Publicly owned; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Conservancy	Potential low-intensity recreational improvements as part of WDFW's wildlife management plan for Asotin Creek; no other development is anticipated
George Creek	
Developable Areas: 72 acres	
Future Development Constraints: Severely erodible soils, landslide hazards; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Rural	No new development is anticipated.
Grand Ronde and Associated Tributaries	
Grande Ronde: Reach 1	
Developable Areas: 361 acres	
Future Development Constraints: Grand Ronde Road runs along the north bank of shoreline; limited road access in parts of reach; steep cliffs; ESA-listed salmonids; public ownership of shoreline	
Environment Designations	**Anticipated Development**
Natural	No new development is anticipated.
Conservancy	No new development is anticipated.
Rural	Limited development is anticipated: one (1) residential development in a 5-acre parcel.
Recreation	No new development is anticipated. Only the maintenance of the existing boat launch area is anticipated.
Grande Ronde: Reach 2	
Developable Areas: 431 acres	
Future Development Constraints: Snake River Road and Rogersburg Road run along part of shoreline; limited road access in parts of reach; steep cliffs; FEMA floodplain; ESA-listed salmonids; public ownership of shoreline	
Environment Designations	**Anticipated Development**
Natural	No new development is anticipated.

Rural	Nine (9) residential developments in the currently subdivided area. Up to seven (7) new private boat launches for non-motorized vessels could potentially be feasible; however, for this analysis we have assumed that only up to two (2) of these launches would be constructed on already developed residential lots.
Joseph Creek	
Developable Areas: 88 acres	
Future Development Constraints: FEMA floodplain; ESA-listed salmonid; limited road access	
Environment Designations	**Anticipated Development**
Rural	No new development is anticipated.
Snake River	
Reach 1	
Developable Areas: 1,252 acres	
Future Development Constraints: Limited road access; steep cliffs	
Environment Designations	**Anticipated Development**
Natural	No new development is anticipated.
Conservancy	Some public access improvement may occur in this designation.
Rural	Twenty-five (25) new residential units could be developed. Almost all of them will have only limited portions within the shoreline area, as Snake River Road creates a functional buffer between the parcels and the river. Up to thirty-seven (37) new private boat launches for motorized vessels were identified as potentially feasible to build based on the analysis described previously; these would likely be associated with existing or new residential units. For the planning horizon of this CIA, it is assumed that up to ten (10) launches could be constructed during the next few decades, most likely on parcels that are already developed. These new launches would likely occur within SR 1b (one new launch), SR 1c (up to two new launches), SR 1d (up to five new launches), and SR 1f (up to two new launches).
Recreation	Potential boat-launch improvement in SR 1c. Maintenance and improvements to existing facilities in the Heller Bar boat launch area. No major improvement is anticipated in the Couse Creek primitive boat launch area. Development of a formal boat launch at Buffalo Eddy is possible.
High Intensity	One lot can be development for water-oriented commercial use near the Heller Bar restaurant. Maintenance and operation of Heller Bar Restaurant and Hells Canyon Resort
Reach 2	
Developable Areas: No developable areas except for 5 acres in residential area and park area	
Future Development Constraints: Highway 129 runs along the shoreline of the entire reach; northern portion is already highly developed; shoreline managed by USACE and hardened	

Environment Designation	Anticipated Development
Conservancy	No new development is anticipated.
Recreation	Potential for limited trail improvement, as SR 129 provides access to the river. Ongoing maintenance and improvements to the existing recreational facilities, such as Greenbelt Trail and Swallows Nest Park
Shoreline Residential	One (1) infill residential development is anticipated in SR 2a, south of the Town of Asotin.
High Intensity	No new development is anticipated. Ongoing maintenance and improvements to the marina and the golf course
Reach 3	
Developable Areas: No developable areas except for the park area.	
Future Development Constraints: Highway 12 runs along the entire shoreline; steep cliffs; public ownership of shoreline	
Environment Designation	**Anticipated Development**
Natural	No new development is anticipated.
Conservancy	No new development is anticipated.
Recreation	Potential improvement of the northern edge of the Chief Timothy Park; ongoing maintenance and improvements to the existing recreational facilities.
Reach 4	
Developable Areas: No developable areas	
Future Development Constraints: Mostly built out; steep cliffs; USACE ownership of shoreline	
Environment Designation	**Anticipated Development**
Conservancy	No new development is anticipated.
Recreation	No new development is anticipated. Ongoing maintenance and improvements to the Offield Landing boat launch area
Reach 5	
Developable Areas: No developable areas	
Future Development Constraints: USACE-owned and operated.	
Environment Designation	**Anticipated Development**
Conservancy	No new development is anticipated.
Recreation	Ongoing maintenance and improvements to the existing recreational facilities and boat launch areas
Shoreline Residential	No new development is anticipated.
High Intensity	Ongoing maintenance and improvements to the Lower Granite Dam area
Reach 6	
Developable Areas: No developable areas	
Future Development Constraints: USACE-owned and operated.	
Environment Designation	**Anticipated Development**
Natural	No new development is anticipated.

Conservancy	No new development is anticipated.
Recreation	Ongoing maintenance and improvements to the Little Goose Landing boat launch area and other recreational facilities
High Intensity	Ongoing maintenance and improvements to the Little Goose Dam area
Reach 7	
Developable Areas: Approximately 8,000 linear feet of shoreline area south of the Lyons Ferry Marina, east of SR 261	
Future Development Constraints: USACE-owned and operated; limited road access	
Environment Designation	**Anticipated Development**
Natural	No new development is anticipated.
Conservancy	No new development is anticipated.
Recreation	Ongoing maintenance and improvements to the recreational facilities
High Intensity	Potential commercial and industrial development of 160,000 square feet near Lyons Ferry Marina, east of SR 261
City of Clarkston	
Developable Areas: 1.7 acres of developable area	
Future Development Constraints: Shoreline already developed by USACE; USACE-, City-, and Port of Clarkston-owned	
Environment Designation	**Anticipated Development**
Conservancy	No new development is anticipated except for the maintenance of the greenbelt and trail.
Recreation	Ongoing maintenance and improvements to the recreational facilities, such as bikeways and trails, boat moorages
High Intensity	Approximately 160,000 square feet of potential new development on the Port of Clarkston property. Improvements include recreational amenities at Granite Lake Park, including completed public pathway improvements, bike and pedestrian paths improvement along Port-owned streets, and construction of a recreational trail at the Port Business Park.
Shoreline Residential	No new development is anticipated. This environment includes the upland parallel designation areas.
Forest Service Creek Group	
Mill Creek Forest Service Group	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
North Fork Wenaha: Forest Service	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**

Conservancy	No new development is anticipated.
Butte Creek Forest Service Group	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
Third Creek Forest Service Group	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
Crooked Creek Forest Service Group	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
First Creek Forest Service Group	
Developable Areas: No developable areas	
Future Development Constraints: USFS-owned; no roads	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
Touchet River and Associated Tributaries	
Touchet River	
Developable Areas: 430 acres	
Future Development Constraints: FEMA floodplain; erodible soils; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Rural	Four (4) new residential developments are anticipated. Because the area is mostly privately owned, limited public access improvement can take place, especially on the golf course.
Recreation	Limited public access improvement may occur in the park.
South Fork Touchet River	
Developable Areas: 568 acres	
Future Development Constraints: FEMA floodplain; landslide hazards; ESA-listed salmonids; tribal land	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated. Development on the tribal land is regulated under the tribal jurisdiction.
Rural	Seventeen (17) new residential developments on 1-acre parcels are anticipated. Limited public access improvement along South Touchet Road
Wolf Fork Touchet River	

Developable Areas: 336 acres	
Future Development Constraints: FEMA floodplain; steep, heavily forested slopes; limited road access	
Environment Designations	**Anticipated Development**
Rural	Two (2) new residential developments on 5-acre lot are anticipated. One (1) new agricultural or residential development on a 40-acre parcel
North Fork Touchet River	
Developable Areas: 528 acres	
Future Development Constraints: FEMA floodplain; ESA-listed salmonids	
Environment Designations	**Anticipated Development**
Rural	Three (3) new residential developments on 5-acre lot are anticipated.
Tucannon River and Associated Tributary	
Tucannon River: Reach 1	
Developable Areas: No developable areas	
Future Development Constraints: 100% publicly owned	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
Recreation	No new development is anticipated. Potential of relocating campgrounds from the floodplain to restore the floodplain
Tucannon River: Reach 2	
Developable Areas: 1,500 acres	
Future Development Constraints: FEMA floodplain	
Environment Designations	**Anticipated Development**
Natural	No new development is anticipated.
Conservancy	No new development is anticipated.
Rural	One (1) new residential or agricultural development on 40-acre lot is anticipated. Potential for public viewing and access opportunities in the existing river crossings
Tucannon River: Town of Starbuck	
Developable Areas: No developable areas	
Future Development Constraints: Entire reach is already developed.	
Environment Designations	**Anticipated Development**
Conservancy	No new development is anticipated.
Rural	No new development is anticipated.
Shoreline Residential	One (1) new residential development is anticipated.
Panjab Creek	
Developable Areas: No developable areas	
Future Development Constraints: Entire reach is owned by USFS	
Environment Designations	**Anticipated Development**

Conservancy	No new residential development is anticipated. Some future improvement may take place in the camping area.

Notes:
CIA = Cumulative Impacts Analysis
ESA = Endangered Species Act
FEMA = Federal Emergency Management Agency
SR = subreach
USACE = U.S. Army Corps of Engineers
USFS = U.S. Forest Service
WDFW = Washington Department of Fish and Wildlife

3.2 Potential Impacts to Ecological Function from Development

Conventional development can lead to negative impacts to the ecological function of shorelines. The degree of impacts can be tied to the intensity of development, intensity of human use, buffer distance between upland development and the shoreline, whether shoreline features such as over-water structures and bank hardening are included, and the maintenance operation procedures and materials used. The following potential impacts are described based on the categories of hydrology, sediment, water quality, and habitat:

- Hydrology: Impervious surfaces affect subsurface storage and flows. Shoreline hardening can affect subsurface water supply cycles, impacting hyporheic exchange. Over-water structures can affect surface flow dynamics (creating eddies, which are localized changes in water velocity).
- Sediment: Sheet flow from impervious surfaces can increase soil erosion and impact the natural nutrient cycles. Vegetation removal also increases soil erosion. Shoreline hardening can affect the sediment supply cycle impacting hyporheic exchange; it can also increase wave energy and thus soil or sediment erosion at the toe of the slope and transfer energy downstream or down current of the hardened area. Wakes from recreation vessels can further exacerbate soil and sediment erosion issues.
- Water Quality: Impervious surfaces affect nutrient cycling and runoff from these surfaces may include toxins or pathogens affecting water quality. Vegetation alterations have similar impacts and may also increase water temperatures due to the loss of overhanging canopies. Landscaped areas where fertilizers, herbicides, or pesticides are used contribute to harmful toxin inputs into the aquatic environment. At boat ramps, gasoline and other chemicals associated with vessel and truck operations and maintenance can potentially enter the aquatic environment.

- **Habitat**: Development, including shoreline infrastructure, can replace habitat patches and fragment patches or corridors. Disturbance may increase invasive wildlife and plant species, limiting resources for native species. Over-water structures alter sediment, organic material pathways, and the photic zone. Aquatic fill can affect spawning habitat, and shoreline hardening may replace variable-sized nearshore sediment materials with large homogenous substrates less conducive to threatened and endangered aquatic species. Artificial light and increased noise can disturb native wildlife species.

4 PROTECTION PROVISIONS OF THE PROPOSED SMP AND ESTABLISHED REGULATION

The Coalition's SMP will work in conjunction with other city, state, and federal regulations and programs that aim to protect ecological resources and the health and well-being of citizens. The following section summarizes the critical area state and federal regulations and plans for restoration. It also describes activities that will be exempt from shoreline development permits administered through the SMP.

4.1 Critical Area Protection and Mitigation

The City of Clarkston has sensitive area regulations for wetlands, geologically hazardous areas, and fish and wildlife habitat conservation areas. The Sensitive Areas Code also describes general mitigation requirements, including avoiding, minimizing, rectifying, or compensating for adverse impacts to these areas or their buffers. Existing sensitive area regulations were updated for the shoreline to be consistent with Ecology's *Wetland & CAO Updates: Guidance for Small Cities, Eastern Washington Edition* (Ecology 2012) and will be updated for critical areas outside the shoreline.

4.2 Beneficial Effects of Established Regulation and Recreational Land Management Agreement

Certain state and federal agencies have jurisdiction over certain types of potential development impacts within the City of Clarkston's shoreline jurisdiction, in addition to the SMP requirements. Development thresholds that commonly lead to federal agency consultation include proposals that may impact federally listed fish or wildlife, wetlands, and streams; affect the floodplain or floodway; or include clearing and grading of land.

The updated SMP regulations are meant to be consistent and work in concert with the following existing state and federal regulations:

- Hydraulic Project Approval (HPA): The HPA is administered by the Washington Department of Fish and Wildlife (WDFW). Any work that uses, diverts, obstructs, or changes the natural flow of beds or banks of state waters is subject to WDFW regulation and could require HPA approval. This could include any projects within

the shoreline jurisdiction that require construction below or above the ordinary high water mark (OHWM) of lakes, rivers, and streams. This could also include projects that propose creating new impervious surfaces that would increase stormwater runoff to the waters of the state.

- **National Pollutant Discharge Elimination System (NPDES):** NPDES permits are administered by Ecology. Any activity that results in the discharge of wastewater to surface water from industrial facilities to municipal wastewater treatment plants requires an NPDES permit. In addition, activities that result in stormwater discharge from industrial facilities, construction sites larger than 1 acre, and municipal stormwater systems that serve more than 100,000 people require an NPDES permit.
- **Clean Water Act (CWA) Section 404 Permit (Section 404):** The federal CWA provides the regulatory structure that authorizes the discharge of pollutants from point sources to waters of the United States. Section 404 of the CWA regulates the discharge of dredged or fill material into the water of the United States, including wetlands. The U.S. Army Corps of Engineers (USACE) administers and enforces the 404 permit, including individual permit decisions and jurisdictional determinations.
- **CWA Section 401 Water Quality Certification (WQC) (Section 401):** Section 401 of the CWA requires that activities listed in Section 404 meet the state water quality standards. Ecology reviews and certifies that a proposed project meets the state's standards with the issuance of the Section 401 WQC. The WQC is required for all general and individual Section 404 permits.
- **Section 10 Rivers and Harbors Act (Section 10):** In conjunction with the Section 404 permit, USACE also administers the Section 10 permit. All projects and activities that take place in navigable waters of the United States are subject to Section 10.
- **Endangered Species Act (ESA) Compliance:** The ESA serves to protect and recover threatened and endangered species and their habitats. The National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries) and U.S. Fish and Wildlife Service (USFWS) jointly administer ESA compliance. Projects associated with federal funding or that require approvals for activities that may affect ESA-listed species will trigger compliance.

4.3 Restoration Opportunities

The SMP objective is to maintain no net loss of ecological shoreline functions necessary to sustain shoreline natural resources. It also should aim to improve the shoreline natural resources through restoration planning. Many groups are involved in shoreline restoration and protection in the region containing the City of Clarkston, including the federal and state government, Franklin Conservation District, and local cities and towns. The following list of key parties may not name all groups that have contributed to shoreline restoration or protection in the past or may in the future, as others may arise:

- City Parks and Recreation Department
- Confederated Tribes of the Umatilla Indian Reservation
- Ducks Unlimited
- Ecology
- Franklin Conservation District
- Lower Columbia Basin Audubon Society
- Mid-Columbia Fisheries Enhancement Group
- NOAA Fisheries
- Pheasants Forever
- The Nature Conservancy
- USACE
- U.S. Bureau of Reclamation
- U.S. Department of Agriculture
- USFWS
- WDFW
- Washington Native Plant Society, Columbia Basin Chapter
- Washington State Conservation Commission
- Washington State Department of Natural Resources
- Washington State Recreation and Conservation Office
- Washington Trout

Although most restoration plans and programs from the SMP jurisdictional area address large-scale direction and management, there is a small set of actions named or planned for specific areas. Tables 3a through 3e list these restoration locations and opportunities and

provided the source document or project proponent, as well as the impairment to be addressed and the key benefits to ecological function expected as a result of the project implementation. Projects have been reordered in this table from the list of projects in the City of Clarkston's Restoration Plan (Anchor QEA 2016) to match the chronological order of reaches, but the project number has remained consistent with the Restoration Plan.

Table 3a

Site-specific Restoration Opportunities – Asotin Creek and Associated Tributaries

Location/Associated Reach	Project Name	Purpose	Description	Project Status*	Source
Asotin Creek – Upland	Asotin Creek Upland BMPs	Fine sediment reduction	Use of BMPs on lands that may be converted to conventional tillage	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
SR 1c	Headgate Park Habitat Complexity	Habitat complexity	Form pools and interstitial spaces by creating logjams with wood or rock placement	Active (2016)	Snake River Salmon Recovery – 3 Year Work Plan
SR 1c	CREP Asotin Creek Restoration and Protection Reach	Riparian restoration	Limit agricultural activities with a prescribed riparian buffer	Active (June 30, 2010)	Snake River Salmon Recovery – 3 Year Work Plan
SR 1c	Headgate Fish Passage Final Design and Construction	Fish passage	Create notch and roughened channel to allow fish passage	Active (December 6, 2015)	Snake River Salmon Recovery – 3 Year Work Plan
NF Asotin Creek	Asotin Creek Prescribed Fire Project	Native vegetation; reintroduction of natural disturbance	Reduce ground fuel accumulations, tree densities, and ladder fuels; maintain historical vegetation and mimic disturbance regime	Proposed	Umatilla National Forest Current and Recent Projects
NF, SF, and Charley Creek (SR 1a) – Asotin/Garfield County	Asotin NF and SF and Charley Creek Channel Complexity – IMW	Channel complexity	Restore pool and gravel bar abundance through placement of IMW	Active (December 31, 2015)	Snake River Salmon Recovery – 3 Year Work Plan
NF, SF, and Charley Creek (SR 1a) – Asotin/Garfield County	Riparian Restoration on WDFW Property in Asotin Creek	Riparian restoration	Control weeds and native species planting	Active (January 15, 2019)	Snake River Salmon Recovery – 3 Year Work Plan

Location/Associated Reach	Project Name	Purpose	Description	Project Status*	Source
George Creek	CREP Asotin Creek Restoration and Protection Reach	Restoration and protection of riparian habitat	Enroll landowners in the CREP	Active (June 30, 2020)	Snake River Salmon Recovery – 3 Year Work Plan
Upstream of George Creek Reach	Ayers Gulch Sediment Retention Pilot	Reduction of fine sediment	Develop sediment retention basins to collect sediment for riparian plantings	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
Unknown	Restoration Phase of the Asotin Creek IMW – Asotin and Charley Creek Riparian Acquisition	Unknown	Not available for public access	Unknown	Snake River Salmon Recovery – 3 Year Work Plan

Notes:
*Project Status is assigned either Conceptual, Proposed (anticipated start date), or Active (proposed completion date).
BMP = best management practice
CREP = Conservation Reserve Enhancement Program
IMW = Intensively Monitored Watershed
NF = North Fork
SF = South Fork
SR = subreach
WDFW = Washington State Department of Fish and Wildlife

Table 3b

Site-specific Restoration Opportunities – Grand Ronde River and Associated Tributaries

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
Multiple	CREP Grande Ronde River Restoration and Protection Reach	Restoration and protection of riparian habitat	Enroll landowners in the CREP	Active (June 30, 2020)	Snake River Salmon Recovery – 3 Year Work Plan
Joseph Creek SR 1a/1b	Riparian Restoration	Riparian restoration and reduction of fine sediment	Stabilize banks though riparian restoration	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
Joseph Creek SR 1b	Joseph Creek Irrigation Efficiency and Riparian Restoration	Instream flow and reduction of temperature	Improve irrigation and riparian planting	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
Joseph Creek SR 1b/1c	Joseph Creek Riparian Restoration	Reduction of temperature	Plant and protect riparian buffers	Active (January 1, 2025)	Snake River Salmon Recovery – 3 Year Work Plan

Notes:
*Project Status is assigned either Conceptual, Proposed (anticipated start date), or Active (proposed completion date).
CREP = Conservation Reserve Enhancement Program
SR = subreach

Table 3c

Site-specific Restoration Opportunities – Snake River

Location or Associated Reach	Project Name	Purpose	Description	Project Status	Source
Above Lower Granite Dam	N/A	Reduce temperature and increase water quality	Restore habitat along mainstem	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (pages 268, 288, 289)
Lower Granite Dam	N/A	Facilitate migration	Make configuration and operation changes; short- and long-term measures to prevent temperature block in adult ladder	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 295)
Mainstem	N/A	Protect and conserve natural ecological processes that support population viability	Explore opportunities to protect intact riparian areas	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 297)
Mainstem	N/A	Protect and conserve natural ecological processes that support population viability	Explore opportunities to protect remaining high-quality, off-channel habitat and restore areas with potential	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 297)
Mainstem	N/A	Protect and conserve natural ecological processes that support population viability	Assess nearshore and cold-water refugia	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 297)
Mainstem	N/A	Increase water quality	Identify water quality sources and implement BMPs	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 298)

Location or Associated Reach	Project Name	Purpose	Description	Project Status	Source
Mainstem	N/A	Increase water quality	Implement Water Quality Plan for total dissolved gas and temperature	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 298)
At dams	N/A	Remove northern pikeminnow to reduce imbalance in predation	Evaluate effectiveness and efficiency of a hook-and-line fishery in area inaccessible to sport fishers	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 299)
At dams	N/A	Reduce imbalance in predation	Implement and improve deterrent devises to keep avian predators away from juvenile salmonid concentration areas	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 299)
At dams	N/A	Stop the spread of invasive species	Encourage educational and monitoring projects and enforce laws to stop spread of invasive species	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 300)
Mainstem	N/A	Reduce temperature to mitigate for climate change	Retain share along stream channels and augment summer flows	Conceptual	ESA Snake River Sockeye Recovery Plan 2014 (page 300)

Notes:
BMP = best management practice
ESA = Endangered Species Act
N/A = not applicable

Table 3d

Site-specific Restoration Opportunities – Touchet River and Associated Tributaries

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
NF – All reaches	Reduce Point Source Inputs	Water quality	Improve road maintenance to reduce fine sediment inputs that carry pollutants	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
NF – All reaches	North Touchet Levee Setback and Habitat Improvements	Floodplain restoration; riparian habitat	Complete levee setbacks and floodplain excavation; ensure placement of wood and rock structures; and complete riparian planting	Proposed (December 5,2014)	Snake River Salmon Recovery – 3 Year Work Plan
NF SR 1a/1b	North Fork Touchet Recreation in Channel Disturbances	Habitat restoration	Reduce channel disturbance	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
NF SR 1c	Upper Touchet River Fish Screen	Salmon habitat	Upgrade irrigation diversion fish screens in the Upper Touchet River	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
NF SR 1d SF SR 1c	Touchet Forks Restoration Design and Implementation	Fine sediment; flood reduction; habitat restoration	Design and implement a project that benefits salmon, reduces flood stage, and reduces sediment transport	Active (January 1, 2016)	Snake River Salmon Recovery – 3 Year Work Plan
SF – All reaches NF – All reaches Wolf Fork – All reaches	CREP Upper Touchet River Restoration and Protection Reach	Riparian habitat restoration and protection	Enroll landowners in the CREP	Active (June 30, 2020)	Snake River Salmon Recovery – 3 Year Work Plan
SF SR 1a	Floodplain Channel Connectivity	Channel complexity; floodplain restoration	Reconnect the stream to the floodplain through placement of logs and increased channel complexity	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
SR 1a	Touchet Valley Golf Course Irrigation Efficiency	Water quality; instream flow	Increase irrigation efficiency at the golf course	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
SR 1a	Touchet River Riparian and Floodplain Restoration	Floodplain connection and function	Promote development of restoration projects	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
SR 1a (RM 8.5)	Rainwater Riparian/ Floodplain Restoration	Floodplain restoration; channel complexity	Remove the cobble berm, replace the bridge, and add wood structures	Active (December 15, 2016)	Snake River Salmon Recovery – 3 Year Work Plan
SR 1d (on border of Walla Walla County)	Touchet River Dike Setback Design Construct (Lindy Levee)	Floodplain restoration	Provide a larger floodplain volume to increase flood capacity and provide healthy riparian habitat	Conceptual	Snake River Salmon Recovery – 3 Year Work Plan
Unknown	West End Ditch (Columbia County)	Geomorphic process restoration	Not available for public access	Active	Snake River Salmon Recovery – 3 Year Work Plan

Notes:
*Project Status is assigned either Conceptual, Proposed (anticipated start date), or Active (proposed completion date).
CREP = Conservation Reserve Enhancement Program
NF = North Fork
RM =rive mile
SF = South Fork
SR = subreach

Table 3e

Site-specific Restoration Opportunities – Tucannon River and Associated Tributaries

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
All reaches	CREP Tucannon River Restoration and Protection Reach	Restoration and protection of riparian habitat	Enroll landowners in the CREP	Active (June 30, 2020)	Snake River Salmon Recover – 3 Year Work Plan
All reaches	Non-CREP Easements	Habitat protection	Permanently protect areas that have been restored or are functioning	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
All reaches	Irrigation Efficiency Projects	Instream flow; water quality	Reduce the amount of water taken for irrigation to increase flow and reduce runoff	Active (June 28, 2024)	Snake River Salmon Recover – 3 Year Work Plan
SR 1a RM 46.4-45.95	Project No. 5 – Camp Wooten Road Relocation	Floodplain connection; channel complexity; riparian restoration	Remove the road, place the LWD, and connect the side channel	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 1a RM 49.1-48.65	Project No. 2 – Instream Complexity at Cow Camp	Channel complexity	Place the LWD and create a side channel	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 1a/1b	Impoundment Lakes Restoration	Salmonid habitat; water quality; floodplain connection	Restore impoundment lakes to reduce temperature and reconnect floodplain	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 1a/1b	Power Line Right-of-Way	Riparian restoration	Remove overhead power lines and relocate to the outside of the riparian zone	Conceptual	Snake River Salmon Recover – 3 Year Work Plan

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
SR 1b RM 44.4-44	Project No. 9 – Big Four Lake Modification and LWD	Channel complexity; floodplain connection	Remove Big Four Lake, decommission parking area, and place LWD	Active (Fall 2017)	Snake River Salmon Recover – 3 Year Work Plan
SR 1b RM 44.85-44.4	Project No. 8 – Curl Lake Levee Setback	Off-channel habitat; floodplain connection	Remove levee and bank armoring, place material on Curl Lake berm, place LWD, and perform riparian planting	Active (Fall 2017)	Snake River Salmon Recover – 3 Year Work Plan
SR 1b RM 40.7-40	Project No. 12 – Deer Lake Side Channel LWD Augmentation	Channel complexity	Place LWD	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 1b RM 45.3-44.85	USFS Road Relocated out of Floodplain	Floodplain connection; channel complexity	Relocate road and place LWD	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 1a/1b RM 45.95-45.3	Project No. 6 – Camp Ground Bridge Relocation	Channel complexity	Relocate existing campground and place LWD	Active (Fall 2017)	Snake River Salmon Recover – 3 Year Work Plan
SR 1a/1b RM: 41.85-40.5	Tucannon LWD Restoration Project Area 11	Channel complexity	Install wood structure and mobile woody debris	Active (February 29, 2016)	Snake River Salmon Recover – 3 Year Work Plan
SR 1b/2a RM 40-39.2	Project No. 13 – Rainbow Lake Reach Levees and LWD	Floodplain connection; channel complexity	Remove or setback levees and place LWD	Active (Fall 2017)	Snake River Salmon Recover – 3 Year Work Plan
SR 2a RM 32.1-31.8	Project No. 19 – Bridge Widening and LWD	Floodplain connection; channel complexity	Remove bridge and bank armoring and place LWD	Conceptual	Snake River Salmon Recover – 3 Year Work Plan

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
SR 2a RM 36.35-34.9	Project No. 16 – Last Resort Community	Channel complexity; off-channel habitat	Add LWD at low-risk areas, perform levee removal, and create off-channel habitat	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2b RM 31.8-31.5	Project No. 20 – Riparian Easement	Habitat protection	Protect riparian habitat through BMPs such as fencing	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2b RM 29.3-28.25	Project No. 23 – Floodplain Ramirez	Floodplain connection	Widen floodplain corridor by setting back or removing infrastructure and add complexity by placing LWD	Active (2016)	Snake River Salmon Recover – 3 Year Work Plan
SR 2b RM 31.5-30.3	Project No. 21 – LWD and Levee Setback	Channel complexity; floodplain connection	Open new flow pathways, setback levees, armoring, and spoil piles, and place LWD	Active (2016)	Snake River Salmon Recover – 3 Year Work Plan
SR 2b RM 35.15-34.3	Project No. 17 – McGovern Lane LWD, Floodplain, and Riparian Restoration	Floodplain connection; channel complexity	Place LWD, relocate road, remove levee and armoring, and create off-channel areas	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2b RM 28.25-27.5	Project No. 24 – Floodplain and Channel Complexity	Channel complexity	Place the LWD and breach the levee to create side channels	Active (December 31, 2016)	Snake River Salmon Recover – 3 Year Work Plan
SR 2b	Improve Fish Migration Corridor into Tumalum Creek	Fish passage	Replace the culvert where Tumalum Creek enters Tucannon River	Conceptual	Snake River Salmon Recover – 3 Year Work Plan

Location/ Associated Reach	Project	Purpose	Description	Project Status*	Source
SR 2b-2h	Protection Area Identified in the Assessment of Easements	Habitat protection	Engage in involvement with landowners to provide information and determine interest in conservation easements	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2c RM 23.65-22.85	Project No. 27 – King Bridge Levee Setback	Channel complexity	Remove levees, place the LWD, and remove armoring	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2c/2d RM 22.85-20	Project No. 28 – King Grade Down	Floodplain connectivity; channel complexity	Remove the levee and place the LWD	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
SR 2g Town of Starbuck	Reach 2 Project 1-6	Floodplain connectivity; off-channel habitat/ complexity	Remove and set back levees, place the LWD, develop the side channel, and perform riparian restoration	Conceptual (January 1, 2012)	Snake River Salmon Recover – 3 Year Work Plan
SR 2g	Noxious Weed Control	Invasive species	Perform assessment of false indigo bush control methods	Conceptual	Snake River Salmon Recover – 3 Year Work Plan
All locations	Conservation tillage	Fine sediment reduction	Maintain conservation tillage practices as applicable and upland improvements to benefit shoreline hydrology and water quality	Active	Conservation Districts

Notes:
*Project Status is assigned either Conceptual, Proposed (anticipated start date), or Active (proposed completion date).
BMP = best management practice
CREP = Conservation Reserve Enhancement Program
LWD = large woody debris
RM = river mile
SR = subreach
USFS = U.S. Forest Service

Table 4a

Key Stressors and General Restoration and Protection Opportunities – Asotin, Columbia, and Garfield Counties

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
Snake River Reach 1	Reach 1 of the Snake River begins at the Washington/Oregon state line and runs north to the Asotin city limits. (RM 176.2 to RM 147).	1,718 acres	SR 1a	Functioning				•		•		•	•	•							•						•
			SR 1b	Functioning				•		•		•	•	•							•						•
			SR 1c	Functioning				•		•		•	•	•							•						•
			SR 1d	Functioning				•		•		•	•	•							•						•
			SR 1e	Impaired				•		•		•	•	•				•			•						•
			SR 1f	Partially functioning				•		•		•	•	•						•	•						•
			SR 1g	Partially functioning				•		•		•	•	•							•						•
Snake River Reach 2	Snake River Reach 2 begins at the north end of the Asotin city limits and ends at the Clarkston Pond at RM 136.4.	511 acres	SR 2a	Impaired				•		•		•	•	•				•			•						•
			SR 2b	Impaired						•		•	•	•				•			•						•
			SR 2c	Impaired				•		•											•						•
Snake River Reach 3	Snake River runs from Clarkston Pond (RM 136.4) to the Asotin/Garfield County line.	1,492 acres	SR 3a	Impaired						•		•	•	•							•						•
			SR 3b	Partially functioning				•		•		•	•	•							•						•
			SR 3c	Functioning				•				•	•	•							•						•
Grande Ronde River Reach 1	Reach 1 of the Grande Ronde River runs from the Washington/Oregon state line to Northeast 1/4 of T7N_R46E_S31.	1,852 acres	SR 1a	Partially functioning			•		•	•					•						•				•		
			SR 1b	Partially functioning	•		•		•	•			•		•						•		•		•		
			SR 1c	Partially functioning			•	•	•	•					•						•				•		
			SR 1d	Partially functioning	•		•		•	•			•		•						•		•		•		

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
Grande Ronde River Reach 2	Reach 2 of the Grande Ronde begins at Northeast 1/4 of T17N_R46E_S31 and ends at the mouth of the Snake River.	981 acres	SR 2a	Partially functioning	•				•				•		•						•		•		•	
			SR 2b	Partially functioning	•				•	•			•	•	•						•		•		•	
			SR 2c	Partially functioning					•	•			•	•	•						•		•		•	
			SR 2d	Partially functioning	•				•	•			•	•	•						•		•		•	
			SR 2e	Partially functioning	•		•		•	•			•		•						•		•		•	
Joseph Creek	Joseph Creek runs from the Washington/Oregon state border to the Grande Ronde River	424 acres	SR 1a	Partially functioning	•				•					•	•						•		•		•	•
			SR 1b	Partially functioning	•				•				•	•	•						•		•		•	•
			SR 1c	Partially functioning	•				•	•			•	•	•						•		•		•	•
Asotin Creek Reach 1	Asotin Creek Reach 1 runs from the Northeast 1/4 of T9N_R43E_S35 to the mouth on the Snake River.	802 acres	SR 1a	Partially functioning						•			•	•	•							•	•	•		
			SR 1b	Partially functioning				•		•			•	•	•							•	•	•		
			SR 1c	Partially functioning	•					•			•		•							•	•	•		
			SR 1d	Impaired	•					•	•		•		•	•		•			IAC	•	•	•		
			SR 1e	Impaired						•			•		•				•		IAC	•	•	•		
South Fork Asotin Creek	The South Fork Asotin Creek begins at Southeast 1/4 of T9N_R44E_S27 and ends near the northeast corner of the Asotin Creek Wildlife Area.	188 acres	N/A	Partially functioning						•			•		•						•		•			

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
North Fork Asotin Creek	The North Fork Asotin Creek begins at the Northeast 1/4 of T9N_R43E_S35 and ends near the northeast corner of the Asotin Creek Wildlife Area.	360 acres	N/A	Partially functioning						•			•		•						•		•				
George Creek	George Creek Reach begins at the Southwest 1/4 of T10N_R45E_S25 and ends at the Southeast 1/4 T10N_R45E_S24.	72 acres	N/A	Partially functioning to impaired	•					•			•		•	•					•		•				

Notes:
Sources for Restoration/Protection Opportunities include documents and plans identified in Section 3 of this report.
BMP = best management practice
IAC = Inventory, Analysis, and Characterization Report (Anchor QEA 2015)
LWD = large woody debris
N/A = not applicable
RM = river mile
SR = subreach

Table 4b

Key Stressors and General Restoration and Protection Opportunities – City of Clarkston

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
Snake River Reach 1	Reach 1 begins at the Clarkston City limits RM 140.5 and ends at the west city limits RM 137.4.	259.8 acres	SR 1a	Partially functioning				•		•		•	•			•				•	•						•
			SR 1b	Partially functioning				•		•		•	•			•				•	•						•
			SR 1c	Partially functioning				•		•		•	•			•				•	•						•

Notes:
BMP = best management practice
IAC = Inventory, Analysis, and Characterization Report (Anchor QEA 2014)
LWD = large woody debris
RM = river mile
SR = subreach

Table 4c

Key Stressors and General Restoration and Protection Opportunities – Garfield County

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
Snake River Reach 4	Reach 4 of the Snake River runs from Lower Granite Lake from (RM 126.9) to the Garfield/Asotin County line (RM 107.5).	2,422 acres	N/A	Functioning				•				•	•	•						•	•						•
Snake River Reach 5	Reach 5 of the Snake River runs from Lake Bryan (Lower Granite Dam; RM 107.5) to the Garfield/Columbia County line (RM 80.5).	3,649 acres	N/A	Partially functioning	•			•		•		•	•	•				•			•						•
Crooked Creek (see also Table 2d)	Crooked Creek runs from the top center of T7N_R41E_S30/ Third Creek to the Oregon state Border.	319 acres	N/A	Functioning				•					•							•							

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
First Creek	First Creek runs from Latitude 46 degrees 02' 45" North to Longitude 117 degrees 50' 12.23 West to Crooked Creek in Garfield County.	43 acres	N/A	Functioning				•					•														
Tucannon River Reach 1 (see also Table 2d)	Reach 1 of the Tucannon River begins at the center of T8N_R42E_S17 in Garfield County and ends at Rainbow Lake (SE 1/4 T10N_R41E_S27) in Columbia County.	805 acres	SR 1a	Functioning			•	•		•			•		•						•						
			SR 1b	Functioning			•	•		•		•	•		•												

Notes:
BMP = best management practice
LWD = large woody debris
N/A = not applicable
RM = river mile
SR = subreach

Table 4d

Key Stressors and General Restoration and Protection Opportunities – Columbia County

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities																
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation	Agriculture
Snake River Reach 6	Reach 6 of the Snake River runs from the Columbia/Garfield County line to Little Goose Dam.	2,611 acres	N/A	Functioning		•		•		•		•	•	•					•			•						•
Snake River Reach 7	Reach 7 of the Snake River runs from Little Goose Dam to the Columbia/Walla Walla County line (RM 70.2 to RM 58.7).	1,320 acres	N/A			•		•		•		•	•	•					•			•						•
Tucannon River Reach 1 (see also Table 2d)	Reach 1 of the Tucannon River begins at the center of T8N_R42E_S17 in Garfield County and ends at Rainbow Lake (Southeast 1/4 T10N_R41E_S27) in Columbia County.	805 acres	SR 1a	Functioning			•	•		•			•			•							•					
			SR 1b	Functioning			•	•		•		•	•			•													
Tucannon River Reach 2	Reach 2 of the Tucannon River begins at Rainbow Lake (Southeast	2,636 acres	SR 2a	Partially functioning	•		•			•			•			•							•					
			SR 2b	Partially functioning	•		•			•			•			•							•					

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation	Agriculture
	1/4 of T10N_R41E_S27) and ends at the confluence of the Tucannon and Snake Rivers.		SR 2c	Partially functioning	•		•			•			•			•						•						
			SR 2d	Partially functioning	•		•			•			•			•						•						
			SR 2e	Partially functioning	•		•			•			•			•						•						
			SR 2f	Partially functioning	•		•			•			•			•						•						
			SR 2g	Partially functioning	•		•			•			•			•						•						
			SR 2h	Partially functioning						•					•	•						•	•					
Punjab Creek	Panjab Creek begins at the Northeast 1/4 of T8N_R41E_S18 and ends at the confluence with the Tucannon River Reach.	111 acres	N/A	Functioning						•			•															•
Touchet River Reach 1	Touchet River runs from Northwest 1/4 of T9N_R39E_S11 to the Columbia/Walla Walla County line.	850 acres	SR 1a	Impaired to partially functioning			•	•		•			•		•	•						•		•			•
			SR 1b	Impaired	•		•			•			•		•	•						•		•			•
			SR 1c	Partially functioning	•		•			•			•		•	•						•		•			•
			SR 1d	Partially functioning	•		•			•			•		•	•						•		•			•
South Fork	South Fork Touchet River runs from Southwest 1/4 of T7N_R39E_S06	855 acres	SR 1a	Partially functioning			•	•		•			•		•	•	•					•		•			
			SR 1b	Partially functioning						•			•		•	•	•					•		•			

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities																	
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation	Agriculture
Touchet River	to the T10N_R39E_S32, just south of the Dayton city limits.		SR 1c	Impaired	•		•			•			•		•	•	•					•		•				
Wolf Fork Touchet River	Wolf Fork Touchet River runs from Southwest 1/4 of T8N_R40E_S07 to the T9N_R39E_S11.	393 acres	SR 1a	Partially functioning			•			•			•		•	•	•					•		•				
			SR 1b	Partially functioning to impaired	•		•			•			•		•	•	•					•		•				
			SR 1c	Functioning						•			•		•	•	•					•		•				
North Fork Touchet River	North Fork Touchet River runs from Northeast 1/4 of T8N_R40E_S28 to T9N_R39E_S11.	587 acres	SR 1a	Partially functioning				•		•			•			•	•					•		•				
			SR 1b	Partially functioning			•			•			•			•	•					•		•				
			SR 1c	Partially functioning to impaired	•		•			•			•			•	•					•		•				
			SR 1d	Partially functioning to impaired	•		•	•		•			•			•	•					•		•				
Mill Creek	Mill Creek runs from the headwaters at T6N_R39E_S06 to the County border, and then into Oregon.	58 acres	N/A	Functioning				•					•															
North Fork Wenaha River	The North Fork Wenaha River from Latitude 46 degrees 20' 45" North to Longitude	42 acres	N/A	Functioning				•					•															

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation	Agriculture
	117 degrees 50' 12.23 West to the Oregon Border.																										
Brutte Creek	Butte Creek runs from Latitude 46 degrees 03' 09.21" North to Longitude 117 degrees 43' 17.78" West to the Oregon Border.	267 acres	N/A	Functioning				•					•														
Third Creek	Third Creek runs from Latitude 46 degrees 02' 29.77" North to Longitude 117 degrees 33' 32.74" West to Crooked Creek in Columbia County.	175 acres	N/A	Functioning				•					•														
Crooked Creek (see also Table 2c)	Crooked Creek runs from the top center of T7N_R41E_S30/ Third Creek to the Oregon state Border.	319 acres	N/A	Functioning				•					•														

Notes:
Sources for restoration and protection opportunities include documents and plans identified in Section 3 of this document
BMP = best management practice
LWD = large woody debris
N/A = not applicable
RM = river mile
SR = subreach

Table 4e

Key Stressors and General Restoration and Protection Opportunities – Town of Starbuck

Reach	Reach Description	Shoreline Jurisdiction	Subreach	Level of Existing Function	Key Stressors							Restoration/Protection Opportunities															
					Agriculture	Hydrologic Management Regimes	Shoreline, In-Water, or Over-water Development	Recreation	Shoreline Stabilization and Habitat Features (i.e., LWD, flow turbidity)	Upland Development	Vegetation (i.e., invasive or non-native species)	Consolidate Water Access Trails	Protect Existing/Replant Degraded Riparian and Wetland Habitat	Protect Existing/Replant Degraded Shrub-steppe Habitat	Implement Aquatic Habitat Protection Plans	Incorporate Aquatic Habitat Complexity	Incorporate Soft Bank Stabilization Techniques	Incentivize Creating Vegetated Filters Adjacent to Agricultural Fields	Incentivize Replacing Residential Lawns with Native Vegetation	Invasive Species Management	Implement or Retrofit Stormwater Controls for Development	Improve Connection to Municipal Sewer	Manage Livestock Through Use of BMPs	Improve Irrigation Efficiencies	Address Fish Barriers	Reduce Erosion, Run-off, and Sedimentation
Tucannon River	The Tucannon River starts at the upstream city limits of the Town of Starbuck and ends at the downstream end of the Town of Starbuck city limits.	59 acres	N/A	Impaired			•			•			IAC (including levee setback)								IAC						

Notes:
BMP = best management practice
IAC = Inventory, Analysis, and Characterization Report (Anchor QEA 2014)
LWD = large woody debris
N/A = not applicable

4.4 Environment Designations

The Coalition members have designated shorelines pursuant to chapter 90.58 RCW by defining them, providing criteria for their identification, and establishing the shoreline ecological functions to be protected. Project proponents are responsible for determining whether a shoreline exists and is regulated pursuant to this Program. The SMP classifies the region's shorelines into the following eight shoreline environment designations and their purposes:

- **Aquatic**: The Aquatic environment designation is used to protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM.
- **Natural**: The Natural shoreline designation is used to protect those shoreline areas relatively free of human influence or that include intact or minimally degraded shoreline ecological functions less tolerant of human use. These systems require that only very low-intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. Consistent with the policies of the designation, restoration of degraded shorelines within this environment is appropriate.
- **Rural**: The Rural environment designation is used to protect rural agricultural and working forest lands, rural transportation corridors, other privately owned large parcels, and working lands in public ownership from urban expansion; restrict intensive development along undeveloped spaces; protect shoreline ecological functions; conserve existing agricultural, rangeland, and forest resources in order to provide for sustained resource use; and maintain natural processes. In addition to existing and future agricultural, rangeland, and forest uses, examples of uses appropriate in rural shoreline environments include lower and higher intensity recreation uses, development in support of agricultural uses, and low-intensity residential development.
- **Conservancy**: The Conservancy environment designation is used to protect shoreline ecological functions and conserve existing natural resource-based uses, such as lower intensity agriculture, forestry, and valuable historical and cultural areas, in order to provide for sustained resource use, achieve natural floodplain processes where applicable, and provide recreational opportunities. In addition to existing low-intensity agriculture or rangeland uses, examples of uses appropriate in a

Conservancy shoreline designation include low-impact recreation, natural resource-based uses, and low-intensity residential development.

- **Recreation**: The Recreation environment designation is used to provide for water-oriented recreational uses with some commercial uses and residential mixed uses to support recreational uses while protecting existing ecological functions, conserving existing natural resources, and restoring ecological functions in areas that have been previously degraded.
- **High Intensity**: The High Intensity environment designation is used to provide for water-dependent public and private commercial and industrial uses. The preferred-use emphasis is on water-dependent or water-oriented commerce and industry. Examples of uses appropriate in a High Intensity shoreline environment include hydroelectric power generation, irrigation water supply diversion or conveyance, transportation, navigation uses, grain elevators, fish hatcheries, barge and conveyance facilities, marinas, hotels and restaurants (when designed with water-enjoyment features), and similar uses. This environment may also provide for recreation while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.
- **Shoreline Residential**: The Shoreline Residential environment designation is used to accommodate primarily residential development and appurtenant structures but also allows other types of development consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses.

The environment designations for the Coalition shorelines are based on designation criteria that consider, among other things, ecological function protection, physical limitations of the shoreline, and existing and planned or envisioned development. These environment designations are one of the key tools for achieving the no-net-loss standard for ecological function and other policy goals within the SMP. For each environment designation, the SMP indicates which shoreline activities, uses, developments, and modifications may be allowed or prohibited within the shoreline jurisdiction. Activities, uses, developments, and modifications are classified as follows:

- Permitted uses that requires a Shoreline SDP or a Shoreline Exemption
- Conditional uses that require a Shoreline Conditional Use Permit

- Prohibited activities, uses, developments, and modifications not allowed and that cannot be permitted through a variance (i.e., only allowed where extraordinary circumstances would impose unnecessary hardships or thwart state use preference policies) or Shoreline Conditional Use Permit

These designations are summarized within the Shoreline Use and Modification Matrix and Shoreline Development Standards tables within the SMP.

4.5 Development Protection Provisions

The following riparian, wetland, and vegetation management provisions within the SMP and critical areas ordinance will provide additional protection against ecological impacts associated with development.

Development regulations in the SMP include standards for buildings heights, impervious surfaces (including trail widths), and riparian buffer protection areas. Supporting facilities for development (including maintenance facilities, utilities, turnarounds, and parking facilities for boat launches) must be located outside of riparian areas (with the exception of low-impact options). The riparian buffer standards for all jurisdictions are shown in Table 5a.

Table 5a
Reach-based Riparian Buffer Widths for All Jurisdictions

Waterbody/Reach/Jurisdiction (see Environment Designation with Reaches Map)	Riparian Buffer Width[1,2]
Segments of All Waterbodies with Natural Environment Designation	Entire SMA jurisdiction area
Segments of All Waterbodies with Conservancy Environment Designation	150 feet

Waterbody/Reach/Jurisdiction (see Environment Designation with Reaches Map)	Riparian Buffer Width[1,2]
Asotin, George, and Joseph Creeks: Grande Ronde, Snake, Tucannon, and Touchet Rivers	• 75 feet for areas where riparian habitat area is 60 feet in width or less • Where a riparian habitat area width is greater than 60 feet but less than 135 feet, then the buffer extends 15 feet beyond the edge of the riparian area • 150 feet where riparian habitat area is 135 feet in width or greater
Tucannon River: Starbuck Reach	• 100 feet (Conservancy environment designation) • 75 feet (Rural environment designation) • 35 feet (Shoreline residential designation)
Snake River: Clarkston Reach	• 65 feet (Conservancy) • 50 feet (Recreation) • 35 feet (High Intensity) • 65 feet (Shoreline Residential)

Notes:
1 = Measured from the OHWM or top of the bank on each side of the channel, as applicable
2 = Accompanied by other wetland, critical areas, and stormwater-management measures, as applicable
OHWM = ordinary high water mark
SMA = Shoreline Management Act

A wetland management and mitigation plan will be required when project development impacts wetlands; mitigation ratios will be used to specify the acreage of replacement wetland necessary. Mitigation ratios are shown in Table 5b.

Table 5b
Mitigation Ratios (for Eastern Washington)

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only[1]	Re-establishment or Creation and Rehabilitation[1]	Re-establishment or Creation and Enhancement[1]	Enhancement Only[1]
All Category IV	1.5:1	3:1	1:1 R/C and 1:1 RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only[1]	Re-establishment or Creation and Rehabilitation[1]	Re-establishment or Creation and Enhancement[1]	Enhancement Only[1]
All other Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not considered possible[2]	6:1 Rehabilitation of a Natural Heritage site	R/C not considered possible[2]	R/C not considered possible[2]	Case-by-case

Notes:

1 = These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, because less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement.

2 = Natural Heritage sites, alkali wetland, and bogs are considered irreplaceable wetlands because they perform some functions that cannot be replaced through compensatory mitigation. Impacts to such wetlands would therefore result in a net loss of some functions no matter what kind of compensation is proposed.

E = Enhancement

R/C = Re-establishment or Creation

RH = Rehabilitation

Integrity of the wetlands shall be maintained through the management of wetland buffers and wetland buffer widths as indicated in Table 5c:

Table 5c

Wetland Buffers (for Eastern Washington)

Wetland Characteristics	Buffer Width by Impact of Proposed Land Use	Other Measures Recommended for Protection
Category IV Wetlands (For wetlands scoring less than 16 points for all functions)		
Score for all three basic functions is less than 16 points	Low – 25 feet Moderate – 40 feet High – 50 feet	No recommendations at this time

Wetland Characteristics	Buffer Width by Impact of Proposed Land Use	Other Measures Recommended for Protection
Category III Wetlands (For wetlands scoring 16 to 18 points or more for all functions)		
Moderate level of function for habitat (score for habitat of 5 to 7 points) *If wetland scores 8 to 9 habitat points, use Category II buffers	Low – 75 feet Moderate – 110 feet High – 150 feet	No recommendations at this time
Score habitat for 3 to 4 points	Low – 40 feet Moderate – 60 feet High – 80 feet	No recommendations at this time
Category II Wetlands (For wetlands scoring 19 to 21 points or more for all functions or having the Special Characteristics identified in the rating system)		
High level of function for habitat (score for habitat of 8 to 9 points)	Low – 100 feet Moderate – 150 feet High – 200 feet	Maintain connections to other habitat areas
Moderate level of function for habitat (score for habitat of 5 to 7 points)	Low – 75 feet Moderate – 110 feet High – 150 feet	No recommendations at this time
High level of function for water quality improvement and low for habitat (score for water quality of 8 to 9 points; habitat less than 5 points)	Low – 50 feet Moderate – 75 feet High – 100 feet	No additional surface discharges of untreated runoff
Riparian forest	Buffer width to be based on score for habitat functions or water quality functions	Riparian forest wetlands need to be protected at a watershed or sub-basin scale; other protection based on needs to protect habitat and water quality functions
Not meeting aforementioned characteristic	Low – 50 feet Moderate – 75 feet High – 100 feet	No recommendations at this time

Wetland Characteristics	Buffer Width by Impact of Proposed Land Use	Other Measures Recommended for Protection
Vernal pool	Low – 100 feet Moderate – 150 feet High – 200 feet Another possibility is to develop a regional plan to protect the most important vernal pool complexes; buffers of vernal pools outside protection zones can then be reduced to: Low – 40 feet Moderate – 60 feet High – 80 feet	No intensive grazing or tilling of wetland
Category I Wetlands (For wetlands scoring 22 points or more for all functions or having the Special Characteristics identified in the rating system)		
Wetlands of high conservation value	Low – 125 feet Moderate – 190 feet High – 250 feet	No additional surface discharges to wetland or its tributaries; no septic systems within 300 feet of wetland; restore degraded parts of buffer
High level of function for habitat (score for habitat of 8 to 9 points)	Low – 100 feet Moderate – 150 feet High – 200 feet	Restore degraded parts of buffer; maintain connections to other habitat areas
Moderate level of function for habitat (score for habitat of 5 to 7 points)	Low – 75 feet Moderate – 110 feet High – 150 feet	No recommendations at this time
High level of function for water quality improvement (8 to 9 points) and low for habitat (less than 5 points)	Low – 50 feet Moderate – 75 feet High – 100 feet	No additional surface discharges of untreated runoff
Not meeting aforementioned characteristics	Low – 50 feet Moderate – 75 feet High – 100 feet	No recommendations at this time

In addition to vegetation management within riparian buffers, wetlands, and wetland buffers, the following SMP provisions for vegetation conservation apply (Provision XX.XX.240):

- Vegetation clearing outside of wetlands and wetland and stream buffers shall be limited to the amount necessary to accommodate approved shoreline development

consistent with all other provisions of this SMP. Mitigation sequencing shall be applied so that the design and location of the structure or development minimizes native vegetation removal.

- Removing noxious weeds and other invasive species shall be incorporated in management and mitigation plans, when applicable, to facilitate establishing a stable native plant community.

4.6 Exempt Activities

The following types of development are exempt from SDP requirements (WAC 173-27-040); however, these activities must comply with all development standards, such as setbacks and other regulations, in the local SMP.

- **Normal maintenance or repair of existing structures**: Maintenance or repair of existing lawful structures and development is exempted when they are subject to damage by accident, fire, or the elements.
- **Owner-occupied single-family residences**: These residences are exempt when they are less than 35 feet above ground level and appurtenant structures, such as garages, decks, driveways, fences, utilities, and grading requires moving less than 250 cubic yards of material.
- **Building bulkheads to protect single-family residences**: State rules specify that a bulkhead should be installed at or near the OHWM and for the sole purpose of protecting an existing single-family residence or appurtenant structures. A bulkhead cannot be exempted if constructed for the purpose of creating dry land.
- **Constructing docks designed for pleasure craft**: This exemption is only for a dock designed for pleasure craft and the private, noncommercial use of the owner, lessee, or contract purchaser of single- and multiple-family residences. The fair market value of the dock shall not exceed $10,000 in fresh waters.
- **Certain agricultural construction activities and practices**: These practices include feedlots, processing plants, and other commercial ventures; irrigation and drainage activities, including operation and maintenance of existing canals, reservoirs, and irrigation facilities; and operation of dikes, ditches, drains, and other facilities existing on September 8, 1975.

- **Emergency construction to protect property from the elements**: This exemption applies for emergency construction necessary to protect property from damage by the elements. Emergency construction does not include building new permanent protective structures that previously did not exist. Restoration actions include controlling aquatic noxious weeds, improving fish or wildlife habitat or fish passage, cleaning toxic waste, controlling weeds, or restoring watersheds. A special kind of exemption defined in the Model Toxic Control Act RCW 70.105D is exempt from all procedural requirements, but not substantive requirements, of the SMA and local SMP.
- **Site exploration and investigation activities**: Activities performed in preparation for applying for a development authorization are exempt if they conform to conditions listed in RCW 90.58.030.(3).(e).xi.
- **Building navigation aids and marking property lines**: Navigation aids, such as channel markers and anchor buoys, are exempt from permit requirements.

4.7 Response to Unanticipated Impacts

Policies within the SMP provide the process for protecting shoreline ecological function from anticipated and unanticipated development through the environment designations, setbacks, and mitigation standards. Additional provisions for unanticipated development, conditional uses, and unique development situations are as follows:

- A reasonable description of shoreline uses through the environment designations
- Buffers and setbacks
- Public input required for conditional use permitted development
- Review by the City of Clarkston and Ecology for conditional use permitted development and variances
- Civil penalties for unauthorized development
- A strict no net loss of ecological functions policy provided in the SMP
- Actions to improve habitat over current conditions and ideas for mitigating development impacts provided in the Restoration Plan (Anchor QEA 2016)

5 ASSESSMENT OF CUMULATIVE IMPACTS

The assessment of cumulative impacts combines existing conditions, environment designations, and anticipated development by proposed environment designation with the potential ecological risks that characterize unregulated development. The provisions within the proposed SMP that can address the risks to ecological functions are also identified, allowing an assessment of the future performance of net effect. Table 6 summarizes these elements for each shoreline reach.

Anticipated development is based on a qualitative land capacity analysis and discussions with City of Clarkston planners through the environment designation development process. The environment designations also determine permitted, permitted as an accessory unit, permitted as special use, and prohibited uses of the shoreline as shown in the Use Tables within the SMP regulations.

Table 6
Cumulative Impacts Analysis

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Asotin Creek: Reach 1	Rural	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. High-priority restoration is planned, including limiting agricultural activities within riparian buffers, resulting in a net gain to ecological function within this SR.
	Shoreline residential	Impaired (SR 1e)	Two (2) new residential developments	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	Residential development provisions (XX.XX.440) (1) Single-family residential development is a preferred use when it is developed in a manner consistent with SMP provisions. (2) Residential development shall be located and constructed to result in no net loss of shoreline ecological function. (3) Lots for residential use shall have a maximum density no greater than that which will be consistent with local comprehensive plans and zoning regulations. (4) Lot density and number for residential use may be further limited by other provisions, including goals, policies, and use regulations of this SMP. (5) Accessory uses and structures shall be located outside of the riparian buffer, unless the structure is, or supports, a water-dependent use. Storage structures to support water-related uses are not water-dependent uses and, therefore, shall be located outside of the riparian buffer. (6) All residential development shall be located or designed in such a manner as to prevent measurable degradation of water quality from stormwater runoff. Adequate mitigation measures shall be required and implemented where there is the reasonable potential for such adverse effects on water quality. (7) New shoreline residences and appurtenant structures shall be sufficiently set back from steep slopes and shorelines vulnerable to erosion so that structural improvements, including bluff walls and other shoreline stabilization and flood control structures, are not necessary to protect proposed residences and associated uses. (8) New floating residences and overwater residential structures are prohibited in shoreline jurisdiction. (9) New, multi-unit residential development, including duplexes, fourplexes, and the subdivision of land into five or more lots, shall make adequate provisions for public access consistent with the regulations set forth in SMP XX.XX.260, Public Access. (10) Fences associated with single-family residences and multi-family structures and their appurtenances shall not obstruct existing visual access to shorelines from public rights of way. (11) New residential development shall connect with sewer systems, when available.	The Shoreline Residential environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. In SR 1e, significant residential development already exists, roads parallel or cross the creek, and in many areas, vegetation has been removed. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect both riparian and upland habitat, water quality, and other functions. (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. Existing development impacts have already impaired certain functions, such as width and types of riparian vegetation. The applicable SMP provisions can prevent further degradation of these and other applicable functions by locating development outside of riparian areas, protecting water quality from runoff during construction and after development, and protecting wetlands that might exist in the area. No net loss of

[2] Upper level provision numbering noted as XX.XX. is subject to change for each Coalition jurisdiction

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(12) All new residential development shall meet the vegetation management provisions contained in SMP XX.XX.240, Shoreline Vegetation Conservation, and SMP XX.XX.560, Fish and Wildlife Habitat Conservation Areas. (13) Residential development clustering may be required by the Shoreline Administrator where appropriate to minimize ecological and visual impacts on shorelines, including minimization of impacts on shoreline vegetation consistent with SMP XX.XX.240, Shoreline Vegetation Conservation. Critical Areas general provisions - excerpted (XX.XX.500) (b) General Provisions Goals (i) Protect members of the public and public resources and facilities from injury, loss of life, or property damage due to landslides and steep slope failures, erosion, seismic events, or flooding. (ii) Maintain healthy, functioning ecosystems through the protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve the biodiversity of plant and animal species. (iii) Direct activities not dependent on shorelands and critical areas resources to less ecologically sensitive sites and mitigate impacts to critical areas by regulating alterations in and adjacent to critical areas. (iv) Prevent cumulative adverse environmental impacts to water quality, wetlands, and fish and wildlife habitat and maintain no net loss of ecological functions. Critical Areas Mitigation requirements - excerpted (XX.XX.510) (1) General Mitigation Standards (a) This section provides general mitigation requirements applicable to alteration of critical areas. Additional specific mitigation requirements are found under Sections XX.XX.520 through XX.XX.560 (b) All proposed alterations to critical areas or associated buffers shall require mitigation sufficient to maintain no net loss of ecological function of the critical area, or to prevent risk from a critical area hazard, and shall give adequate consideration to the reasonable economically viable use of the property. Mitigation of one critical area impact should not result in unmitigated impacts to another critical area. Mitigation may include buffers, setbacks, limits on clearing and grading, BMPs for erosion control and maintenance of water quality, or other conditions appropriate to avoid or mitigate identified adverse impacts. (c) Any approval of mitigation to compensate for impacts on a critical area or its buffer shall be supported by the most current, accurate, and complete scientific and technical information available.	ecological function is anticipated as these provisions are applied.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(2) Mitigation Sequencing (a) Mitigation includes avoiding, minimizing, or compensating for adverse impacts to regulated critical areas or their buffers, unless part of a restoration plan for significantly degraded wetland or stream buffer. (3) Mitigation Timing. Mitigation shall be completed immediately following disturbances and prior to use or occupancy of the activity or development or when seasonally appropriate. Construction of mitigation projects shall be timed to reduce impacts on existing fisheries, wildlife, and water quality. (4) Restoration/Rehabilitation Requirements: (a) Restoration/rehabilitation is required when a critical area or its buffers have been altered on a site in violation of Coalition regulations prior to development approval, and, as a consequence, its ecological functions have been degraded. Restoration is also required when the alteration occurs in violation of Coalition regulations during the construction of an approved development proposal. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan. (b) Restoration/rehabilitation is required when the critical area or its buffers will be temporarily altered during the construction of an approved development proposal. At a minimum, all impacted areas shall be restored to their previous condition pursuant to an approved mitigation plan. (5) Compensation. The goal of compensation is to achieve no net loss of critical area or buffer functions on a development site. Compensation includes replacement or enhancement of the critical area or its buffer depending on the scope of the approved alteration and what is needed to maintain or improve the critical area or buffer functions. Compensation for approved critical area or buffer alterations shall meet the following minimum performance standards and shall occur pursuant to an approved mitigation plan: (a) The buffer for a created, restored, or enhanced critical area, proposed as compensation for approved alterations, shall be the same as the buffer required for the existing critical area. (b) On-site and In-kind. Except as noted below or otherwise approved, all critical area impacts shall be compensated through restoration of creation of replacement areas that are in-kind, on-site, and of similar or better critical area category. Mitigation shall be timed prior to or concurrent with the approved alteration and shall have a high probability of success. (c) Off-site and In-kind. The Shoreline Administrator may consider and approve off-site compensation where the applicant demonstrates that greater biological and hydrological functions and values will be achieved. The preferred location for off-site mitigation is areas within or adjoining designated fish and wildlife habitat corridors or as part of other applicable habitat restoration efforts. The compensation may include restoration, creation, or enhancement of critical areas. The compensation ratios specified under the on-site compensation section for each critical area shall also apply	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					for off-site compensation. The Shoreline Administrator may request contractual linkage to the off-site parcel to ensure its availability and landowner willingness. (d) Increased Replacement Ratios. The Shoreline Administrator may increase the ratios under any of the following circumstances: (i) Uncertainty exists as to the probably success of the proposed restoration or creation due to an unproven methodology or proponent (ii) A significant time period will elapse between impact and replication of critical area functions (iii) The impact was unauthorized (e) Decreased Replacement Ratios. The Shoreline Administrator may decrease the ratios required in the on-site ratios specified under the compensation section of each critical area when all the following criteria are met: (i) A minimum replacement ratio of 1:1 will be maintained. (ii) Documentation by a qualified professional demonstrates that the proposed mitigation actions have a very high rate of success. (iii) Documentation by a qualified professional demonstrated that the proposed mitigation actions will provide ecological functions and values that are significantly greater than the critical area being impacted. (iv) The proposed mitigation actions are conducted in advance of the impact and have been shown to be successful. (6) Critical Area Enhancement as Mitigation (a) Impacts on wetland and stream functions may be mitigated by enhancement of existing significantly degraded areas. Applicants proposing to use enhancement must produce a Critical Area Report that identifies how enhancement will increase the functions of the degraded resource and how this increase will adequately mitigate for the loss of critical area and its function at the impact site. An enhancement proposal must also show whether existing critical area functions will be reduced by the enhancement actions. (7) Monitoring (a) The Shoreline Administrator shall require long-term monitoring of development proposals, unless otherwise accepted where alteration of critical areas or their buffers are approved. Such monitoring shall be an element of the required mitigation plan and shall document and track impacts of development on the ecological functions and values of critical areas, as well as the success and failure of mitigation requirements. (8) Contingencies/Adaptive Management. When monitoring reveals a significant deviation from predicted impacts or a failure of mitigation measures, the applicant shall be responsible for appropriate corrective action. Contingency plans developed as part of the original mitigation plan shall apply but may be modified to address a specific deviation or failure. Contingency plan measures shall be subject to the monitoring requirement to the same extent as the original mitigation measures.	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(9) Mitigation Plan. All proposed mitigation components shall be included in the Critical Area Report. (10) Buffers (a) As described in more detail in each relevant section, buffers have, in some cases, been determined to be necessary and appropriate to protect critical areas and their functions or to prevent risk from a critical area hazard. In those sections where specific buffers are identified, those buffers are deemed "required" or "standard" buffers. See Section XX.XX.560 (6) and Table XX XX.210 (2-4) for riparian buffers, and SMP XX.XX.520 for wetland buffers. If a project or activity does not propose any alteration to those buffers or to the associated critical area, then additional mitigation will not be required to protect the critical area. (b) If, however, based on unique features of the particular critical area or its buffer or of the proposed development, the Shoreline Administrator determines that additional buffers and/or mitigation measures beyond these standard buffers are necessary to adequately protect the function of the critical area or to prevent risk of a hazard from the critical area, the Shoreline Administrator may impose such additional mitigation requirements, provided the Shoreline Administrator can demonstrate, based on the most current, accurate, and complete scientific or technical information available, why that additional mitigation or buffering is required to adequately protect the critical area function or to prevent a hazard from a critical area. (c) If portions of a parcel that contain a proposed development activity have not had their critical areas and associated buffers delineated because they were outside the project or area affected by the project, pursuant to Section XX.XX.500(6) and (7), General Review Process and Critical Area Report Requirements, then additional critical area assessments may be required in the future prior to any change in use or development activity for that portion of the site. (d) Further, if the applicant seeks a variance to reduce these buffers or to alter the critical area or its required buffer, then the applicant shall demonstrate, based on the most current, accurate, and complete scientific or technical information available, why such buffer and/or critical area modification, together with such alternative mitigation proposed in the Critical Area Report, is sufficient to achieve no net loss of critical area function. If necessary, variances shall provide for long-term buffer protection. Variance requests shall be reviewed pursuant to Section XX.XX.760, Shoreline Variance. (e) The Critical Area Report and the conditions of approval shall provide for long-term buffer protection. Regarding land division, critical areas and their associated buffers may be placed in separate tracts to be owned by all lot owners in common, by a homeowners' association, or some other separate legal entity such as a land trust. However, critical areas and/or buffers identified and defined in this section do not require any provisions for public access, and appropriate restrictions may be included in the easement or title documents. Critical areas and/or buffers identified are, however,	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					subject to periodic inspection by the Shoreline Administrator, upon prior notification to the landowner, to ensure long-term protection. (11) Mitigation Security (a) The Shoreline Administrator shall have the discretion to withhold issuance of a development permit or approval until required mitigation has been completed. Alternatively, the Shoreline Administrator may require a refundable cash payment that will ensure compliance with the approved mitigation plan if there will be activity (e.g., monitoring or maintenance) or construction to take place after the issuance of the shoreline permit or other approval. The amount of the cash payment shall not exceed 150% of the estimated cost of the uncompleted actions or construction as determined by the Shoreline Administrator. When the Shoreline Administrator determines that the mitigation plan has been successfully completed, the cash payment shall be refunded to the applicant. If the mitigation plan is not successfully completed, the Coalition shall be entitled to keep all or part of the cash payment to the extent necessary to rectify the deficiencies regarding the completion of the mitigation plan. (12) Protection of Designated Critical Areas (a) Identification and Recording of Critical Areas. Approval of development projects and other land-use activities that require a Critical Area Report pursuant to Sections XX.XX.500 (6) and (7), General Review Process and Critical Area Report Requirements, shall be subject to the identification and designation of all critical areas and their buffers identified in the assessment process. Each critical area shall be clearly defined and labeled to show calculated area and type and/or class of critical area within each lot. The Shoreline Administrator shall require of the applicant that such designated critical areas be recorded on the final plat map or site plan, clearly showing the locations of critical areas, existing vegetation, and buffers. (i) Construction Marking. During construction, clearly visible, temporary marking, such as flagging and staking, shall be installed and maintained along the outer limits of the proposed site disturbance outside of the critical area. Such field markings may be field-approved by the Shoreline Administrator prior to the commencement of permitted activities. Markings shall be maintained throughout the duration of any construction activities. (ii) Mitigation Signing and Fencing. The Shoreline Administrator may require permanent signing and/or fencing where it is determined a necessary component of a mitigation plan. The intent of this subsection is to provide clear and sufficient notice, identification, and protection of critical areas on-site where damage to a critical area or buffer by humans or livestock is probable due to the proximity of the adjacent activity. (iii)Sign, Marker, and Fence Maintenance. It shall be the responsibility of the landowner to maintain, including replacement of, the markers, signs, and fences required under this section in working order throughout the duration of the development project or land-use activity. Removal of required markers, signs, and fences without written approval of the Shoreline Administrator shall be considered a violation of this section.	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
	Recreation	Partially functioning	Potential recreational improvements in Headgate County Park	Hydrology: Moderate Sediment: Low Water Quality: Moderate Habitat: Moderate	Recreational development provisions (XX.XX.430) (1) Preferences: (a) Recreational uses and facilities shall include features that relate to access, enjoyment, and use of local shorelines. (b) Both passive and active shoreline recreation uses are allowed. (c) Water-oriented recreational uses and activities are preferred in the shoreline jurisdiction. Water-dependent recreational uses shall be preferred as a first priority and water-related and water-enjoyment recreational uses as a second priority. (d) Existing passive recreational opportunities, including hunting, angling, nature appreciation, utilizing primitive trails where motorized vehicles are not allowed, and environmental interpretation, shall be maintained. (e) Preference shall be given to developing and enhancing public access to the shoreline to enhance opportunities for angling (fishing), boating, and other water-dependent and water-related recreational opportunities. (2) General performance standards: (a) The potential adverse impacts of all recreational uses shall be mitigated, and adequate provisions for shoreline rehabilitation shall be made part of any proposed recreational use or development to ensure no net loss of shoreline ecological function. (b) Sites with fragile and unique shoreline conditions, such as high-quality wetlands and wildlife habitats, shall be used only for non-intensive recreation activities such as trails, viewpoints, interpretive signage, and similar passive and low-impact facilities that result in no net loss of shoreline ecological function and do not require the construction and placement of permanent structures. (c) Use of chemical fertilizers and pesticides should be avoided at recreational developments in shoreline environments. New recreational developments shall be designed to avoid their use. Where their use is required, such use shall be minimized. Measures shall be taken to avoid pesticides and fertilizers leaching into soils and nearshore hyporheic zones in shorelines. The proponent shall specify the BMPs to be used to prevent these applications and resultant leachate from entering adjacent waters. Recreational developments shall be located and designed to preserve, enhance, or create scenic views and vistas. (d) In approving shoreline recreational developments, the Shoreline Administrator shall ensure that the development will maintain, enhance, or restore desirable shoreline features, including unique and fragile areas, scenic views, and aesthetic values. The Shoreline Administrator may, therefore, adjust or prescribe project dimensions, on-site location of project components, intensity of use, screening, lighting, parking, and setback requirements. (3) Signs indicating the public's right to access shoreline areas shall be installed and maintained in conspicuous locations at all points of access.	The Recreation environment designation was applied to the shoreline segments currently supporting recreation at Headgate County Park. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect both riparian and upland habitat, water quality, and other functions. (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts are planned for the Headgate Fish Passage facility to create a notch and roughened channel to allow for fish passage and place logjams with wood and rocks to form habitat pools. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(4) Recreational developments shall provide facilities for non-motorized access to the shoreline, such as pedestrian and bicycle paths and equestrian access, as applicable. New motorized vehicle access shall be located and managed to protect riparian, wetlands, and shrub steppe habitat functions and value. (5) Proposals for recreational developments shall include a landscape plan indicating how native, self-sustaining plant communities are incorporated into the proposal to maintain ecological functions. The removal of on-site native vegetation shall be limited to the minimum necessary for the development of permitted structures or facilities and shall be consistent with provisions of SMP XX.XX.240, Shoreline Vegetation Conservation, and SMP XX.XX, Article V, Critical Areas. (6) Accessory uses and support facilities such as maintenance facilities, utilities, and other non-water-oriented uses shall be consolidated and located in upland areas outside shoreline, wetland, and riparian buffers unless such facilities, utilities, and uses are allowed in shoreline buffers based on the regulations of this SMP. (7) The placement of picnic tables, playground apparatuses, and other similar minor components within the floodways shall be permitted, provided such structures are located and installed in such a manner as to prevent them from being swept away during a flood event. (8) Recreational facilities shall make adequate provisions, such as providing screening, landscaping buffer strips, fences, and signs, to prevent trespass upon adjacent properties and protect the value and enjoyment of adjacent or nearby private properties and natural areas, as applicable. (9) Recreational facilities or structures shall only be built over water when they provide public access or facilitate a water-dependent use and be the minimum size necessary to accommodate the permitted activity. (10) Recreational developments shall make adequate provisions for all of the following: (a) On-site and off-site access and, where appropriate, equestrian access (b) Appropriate water supply and waste disposal methods (c) Security and fire protection (11) Structures associated with recreational development shall not exceed 35 feet in height, except for as noted in SMP XX.XX.210, Development Standards, when such structures document that the height beyond 35 feet will not obstruct the view of a substantial number of adjoining residences. (12) Recreational development shall minimize effective impervious surfaces in shoreline jurisdiction and incorporate low-impact development techniques. See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
South Fork Asotin Creek	Conservancy	Partially functioning	Potential low-intensity recreational improvements (e.g., visual access)	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	Restoration efforts planned include invasive species control and riparian planting on WDFW property and placement of large woody materials to restore pool and gravel bar abundance.
North Fork Asotin Creek	Conservancy	Partially functioning	Potential low-intensity recreational improvements (e.g., visual access)	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	Restoration efforts planned include invasive species control and riparian planting on WDFW property and placement of large woody materials to restore pool and gravel bar abundance, resulting in a net gain to ecological function.
George Creek	Rural	Partially functioning to impaired	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, resulting in a net gain to ecological function.
Grande Ronde: Reach 1	Natural/ Conservancy	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, resulting in a net gain to ecological function.
	Rural	Partially functioning	One (1) residential development in a 5-acre parcel	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within the upland areas of Grande Ronde Reach 1 include road infrastructure, agricultural activities, and shoreline stabilization (riprap). Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. A riparian buffer will be applied to protect both riparian and upland habitat, water quality and other functions (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. Existing development impacts have already impaired certain functions, such as water quality and aquatic forage and habitat availability, and in addition, riparian buffer widths have been reduced near agricultural areas. The applicable SMP provisions can prevent further degradation of these and other associated functions by locating development outside of riparian areas, protecting water quality from runoff during construction and after development, and protecting wetlands that might exist in the area. Targeted restoration of the currently impaired functions would increase the likelihood of improving conditions to a level above no net loss of ecological function. No net loss of these functions is anticipated as these provisions are applied and restoration of currently impaired functions is implemented
	Recreation	Partially functioning	No new development anticipated, though maintenance of the existing boat launch is anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting boat launch recreation elements next to the WA-129 bridge over the river. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect both riparian

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						and upland habitat, water quality, and other functions. (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as development is focused on maintenance of existing features, SMP provisions are applied, and restoration is implemented.
Grande Ronde: Reach 2	Natural/ Recreation/ Conservancy	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
	Rural	Partially functioning	Nine (9) residential developments in the currently subdivided area and four (4) new private non-motorized boat launches	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	Boating facilities development provisions (XX.XX.320) applicable for private launches (1) General requirements: (a) All boating uses, development, and facilities shall protect the rights of navigation. (b) Boating facilities shall be sited and designed to ensure no net loss of shoreline ecological functions and meet DNR and USACE requirements and other state guidance if located in or over state-owned aquatic lands. (c) Boating facilities shall be located on stable shorelines in areas where: (i) Such facilities will not adversely affect flood channel capacity or otherwise create a flood hazard (ii) Water depths are adequate to minimize spoil disposal, filling, beach enhancement, and other channel maintenance activities (iii) Water depths are adequate to prevent the structure from grounding out at the lowest low water, or else stoppers are installed to prevent grounding out (d) Boating facilities shall not be located: (i) Where new dredging will be required (ii) Where wave action caused by boating use would increase bank erosion rates, unless no-wake zones are implemented at the facility.	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within SRs 2d and 2e (where development is anticipated) include road infrastructure, agricultural, and residential development. Upland residential development within Reach 2 will likely occur on parcels within SR 2d and SR 2e that have limited existing riparian buffers. Intact riparian buffers within this reach occur predominately waterward of private lots, or within areas that have very little development. Development of private launches can also integrate well based on existing development constraints and ecologically functioning areas. Within SR 2d, intact riparian buffers occur on lands outside of private parcels, and lots that could house launch features have very little riparian buffer, or have gaps in riparian buffers that could accommodate these features with little impacts to habitat. Within SR 2e, parcels that have enough clear area to house

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(e) Boating uses and facilities shall be located far enough from public swimming beaches and aquaculture harvest areas to alleviate any aesthetic or adverse impacts, safety concerns, and potential use conflicts. (f) In-water work shall be scheduled to protect biological productivity, including, but not limited to, fish runs, spawning, and benthic productivity. (g) Accessory uses at boating facilities shall be: (i) Limited to water-oriented uses, including uses that provide physical or visual shoreline access for substantial numbers of the general public (ii) Located as far landward as possible while still serving their intended purposes (h) Boating facilities shall be located where access roads are adequate to handle the traffic generated by the facility and designed so that lawfully existing or planned public shoreline access is not blocked, obstructed, or made dangerous unnecessarily. (i) All marinas and public launch facilities shall provide at least portable restroom facilities for boaters' use that are clean, well-lit, safe, and convenient for public use. (j) Installation of boat waste disposal facilities, such as pump-outs and portable dump stations, shall be required at all marinas and provided at public boat launches to the extent possible. The locations of such facilities shall be considered on an individual basis in consultation with the Washington State Department of Health, Ecology, DNR, Washington State Parks, and WDFW, as necessary. (k) All utilities shall be placed at or below dock levels, or below ground, as appropriate. (l) When appropriate, marinas and boat launch facilities shall install public safety signs to include the locations of fueling facilities, pump-out facilities, and locations for proper waste disposal. (m) Boating facilities shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions, decking, and other components that may come in contact with water shall be approved by applicable state agencies for use in water to avoid discharge of pollutants from wave splashing, rain, or runoff. Wood treated with creosote, copper chromium, arsenic, pentachlorophenol, or other similarly toxic materials is prohibited for use in moorage facilities. (n) Boating facilities in waters providing a public drinking water supply shall be constructed of untreated materials, such as untreated wood, approved plastic composites, concrete, or steel (see SMP XX.XX.250, Water Quality, Stormwater, and Nonpoint Pollution). (o) Vessels shall be restricted from extended mooring on waters of the state except as allowed by state regulations and provided that a lease or permission is obtained from the state and impacts to navigation and public access are mitigated. (2) Private boat launch facilities: (a) Allowed only with a SDP and restricted to the Snake River upstream of Asotin and along the Grande Ronde River. All private boat launches shall comply with applicable	a boat launch also contain very little existing riparian habitat. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. A riparian buffer will be applied to protect both riparian and upland habitat, water quality, and other functions (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. Existing development impacts have already impaired certain functions through the reduction in riparian buffers, leading to soil erosion, runoff, and water quality issues. The applicable SMP provisions can prevent further degradation of these and other applicable functions by locating development outside of riparian areas, protecting water quality from runoff during construction and after development, and protecting wetlands that might exist in the area. Targeted restoration would increase the likelihood of improving conditions to a level above no net loss of ecological function. No net loss of these functions is anticipated as these provisions are applied and restoration of currently impaired functions is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					federal and state agency standards and requirements, such as WDFW, USACE, NOAA Fisheries, and others. (b) Boat launch facilities shall be designed by a qualified professional and constructed: (i) In a manner that minimizes adverse impacts on fluvial processes, biological functions, aquatic and riparian habitats, water quality, navigation, and neighboring uses (ii) In a manner that public use and access to beaches is not blocked or made unsafe, and so that public use of the surface waters is not unduly impaired (iii) Using methods and technologies that have been recognized and approved by state and federal resource agencies as the best currently available (c) No more than one (1) private boat launch facility or structure shall be permitted on a single residential parcel or lot. (d) New private boat launches or existing private boat launch upgrades shall demonstrate in plans prepared by a qualified professional that: (i) Water depths are adequate to avoid the need for dredging during construction or maintenance dredging and eliminate or minimize potential loss of shoreline ecological functions or other shoreline resources (ii) The site is geomorphically stable and not along a braided or meandering channel, where the channel is subject to change, or on point bars or accretion beaches (iii) Mitigation procedures have been applied consistent with Section xx.xxx.230 (iv) The boat ramp or access roadway shall not exceed 12 feet in width (v) Any turnaround or parking facilities must be located outside of the riparian buffer as provided in xx.xxx.210, except for a tee-type turnaround with minimal dimensions that is a minimum of 30 feet from the OHWM, has an impervious surface, requires minimal grading, and will avoid impacts to water quality (vi) Stormwater management measures are required to prevent direct discharge of stormwater to the river during construction and for the duration and use of the launch (vii) An approved road access permit must be acquired from the county road department, unless already served by an existing legally approved access approach (viii) The total area of impervious surface for the boat launch development (including parking, access drive, and launch) shall not exceed 400 square feet. (ix) The total area of woody vegetation removal for the boat launch development (including parking, access drive, and launch) shall not exceed a corridor width of 15 feet and will require on-site mitigation, consistent with sections XX.XX.230 and 240. See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	
Joseph Creek	Rural/ Conservancy	Impaired functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include irrigation-related improvements and riparian restoration to stabilize shoreline banks, resulting in a net gain to ecological functions.
	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Snake River: Reach 1				Water quality: Low Habitat: Low		efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological function.
						No development is anticipated, resulting in a net gain to ecological function.
	Rural	Impaired functioning	Twenty-five (25) new residential units, but with only limited portions near shoreline; ten (10) new private motorized boat launches associated with existing and new residential units	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential and boating facilities development provisions (XX.XX.440 and XX.XX.320). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within the upland areas of Snake River Reach 1 include road infrastructure and residential and agricultural development. Further impacts in this reach occur along the shorelines through motorized boat use and boat camping. Upland residential development within Reach 1 will likely be accommodated landward of Snake River Road, with the exception of a handful of parcels; areas where this barrier does not exist have already been developed. Development of private launches can also integrate well based on existing development constraints and ecologically functioning areas. Within SR 1b, feasible parcels for boat launches have a large amount of area that can work these features around intact riparian buffers by developing in areas where vegetation does not exist. Within SR 1c, there is less space to develop boat launches based on parcel configurations and the adjacent road; SR 1c also has very little riparian vegetation in need of protection where boat launch development could occur. SR 1d, similar to SR 1c, has limited riparian vegetation and less space for boat launch development due to the adjacent road. Within SR 1d, areas with intact, functioning, riparian vegetation are not located near areas where development pressure exists. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. A riparian buffer will be applied to protect both riparian and upland habitat, water quality, and other functions (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. Existing development and river management have already impaired certain functions through the reduction in riparian vegetation, which has led to water quality issues as well as reduced habitat functions (migratory corridors, refuge, and forage uses). The applicable SMP provisions can prevent further degradation of these and other applicable functions by locating development outside of riparian areas, protecting water quality from runoff during construction and after development, and protecting wetlands that might exist in the area. No net loss of ecological function is anticipated as these provisions are applied and restoration of existing impaired ecological function within this reach is implemented.
	Recreation	Functioning	Potential boat launch improvements in SR 1c; maintenance and improvements at Heller Bar boat launch; potential new boat formalized	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430) and (XX.XX.430) and boating facilities development provisions (XX.XX.320) applicable for public launches. (1) General requirements: (a) All boating uses, development, and facilities shall protect the rights of navigation. (b) Boating facilities shall be sited and designed to ensure no net loss of shoreline ecological functions and meet DNR and USACE requirements and other state guidance if located in or over state-owned aquatic lands.	The Recreation environment designation was applied to the shoreline segments currently supporting formal and informal boat launch recreation elements (Couse Creek, south of Buffalo Eddy, Heller Bar). Existing impacts within the upland areas of Snake River Reach 1 include road infrastructure and residential development. Further impacts in this reach occur along

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
			boat launch at Buffalo Eddy		(c) Boating facilities shall be located on stable shorelines in areas where: (i) Such facilities will not adversely affect flood channel capacity or otherwise create a flood hazard (ii) Water depths are adequate to minimize spoil disposal, filling, beach enhancement, and other channel maintenance activities (iii) Water depths are adequate to prevent the structure from grounding out at the lowest low water, or else stoppers are installed to prevent grounding out (d) Boating facilities shall not be located: (i) Where new dredging will be required (ii) Where wave action caused by boating use would increase bank erosion rates, unless no-wake zones are implemented at the facility (e) Boating uses and facilities shall be located far enough from public swimming beaches and aquaculture harvest areas to alleviate any aesthetic or adverse impacts, safety concerns, and potential use conflicts. (f) In-water work shall be scheduled to protect biological productivity, including, but not limited to, fish runs, spawning, and benthic productivity. (g) Accessory uses at boating facilities shall be: (i) Limited to water-oriented uses, including uses that provide physical or visual shoreline access for substantial numbers of the general public (ii) Located as far landward as possible while still serving their intended purposes (h) Parking and storage areas shall be landscaped or screened to provide visual and noise buffering between adjacent dissimilar uses or scenic areas, along with meeting other requirements provided in XX.XXX.470. (i) Boating facilities shall locate where access roads are adequate to handle the traffic generated by the facility and be designed so that lawfully existing or planned public shoreline access is not unnecessarily blocked, obstructed, or made dangerous. (k) All marinas and public launch facilities shall provide at least portable restroom facilities for boaters' use that are clean, well-lit, safe, and convenient for public use. (l) Installation of boat waste disposal facilities, such as pump-outs and portable dump stations, shall be required at all marinas and provided at public boat launches to the extent possible. The locations of such facilities shall be considered on an individual basis in consultation with the Washington State Department of Health, Ecology, DNR, Washington State Parks, and WDFW, as necessary. (m) All utilities shall be placed at or below dock levels or below ground, as appropriate. (n) When appropriate, marinas and boat launch facilities shall install public safety signs to include the locations of fueling facilities, pump-out facilities, and locations for proper waste disposal. (o) Boating facilities shall be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term. Materials used for submerged portions, decking, and other components that may come in contact with water shall be approved by applicable state agencies for use in water to avoid discharge	the shorelines through motorized boat use and boat camping. Riparian vegetation is very sparse within the Buffalo Eddy and Heller Bar recreation areas. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5), with particular care for development near Couse Creek, which has the most intact riparian vegetation of the three recreation areas. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					of pollutants from wave splashing, rain, or runoff. Wood treated with creosote, copper chromium, arsenic, pentachlorophenol, or other similarly toxic materials is prohibited for use in moorage facilities. (p) Boating facilities in waters providing a public drinking water supply shall be constructed of untreated materials, such as untreated wood, approved plastic composites, concrete, or steel (see SMP XX.XX.250, Water Quality, Stormwater, and Nonpoint Pollution). (q) Vessels shall be restricted from extended mooring on waters of the state except as allowed by state regulations and provided that a lease or permission is obtained from the state and impacts to navigation and public access are mitigated. (2) Public boat launch facilities: (a) Public boat launch facilities may be allowed in areas where no launching opportunities exist within close proximity of a site (within less than a distance of 3 miles by road on a waterbody) consistent with the Southeast Washington SMP Update Public Access Plan. (b) Public boat launch and haul-out facilities, such as ramps, marine travel lifts and railways, and minor accessory buildings, shall be designed and constructed in a manner that minimizes adverse impacts on fluvial processes, biological functions, aquatic and riparian habitats, water quality, navigation, and neighboring uses. (c) Public boat launch facilities shall be designed and constructed using methods and technologies recognized and approved by state and federal resource agencies as the best currently available. (d) Boat ramps are prohibited on privately owned, non-commercial properties. See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	
	High Intensity		One (1) lot redeveloped for water-oriented commercial use; maintenance and operation of Heller Bar Restaurant and Hells Canyon Resort	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	Commercial development provisions (XX.XX.340) (1) Water-dependent commercial development shall be given priority over non-water-dependent commercial uses within shoreline environments. Secondarily, water-related and water-oriented uses shall be given priority over non-water-oriented commercial uses. (2) Non-water-oriented commercial uses shall be allowed if they can demonstrate at least one or more of the following: (a) The commercial use is part of a mixed-use project that includes water-dependent uses and provides a significant public benefit with respect to the objectives of the SMA (b) The commercial use is physically separated from the shoreline by another property, public right-of-way, or levee (c) The commercial use is farther upland than 200 feet from the OHWM; therefore, a water-oriented use is not a viable option (3) Non-water-oriented uses, including, but not limited to, residential uses, may be located with water-oriented commercial uses, provided:	The High Intensity environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions and functional breaks from existing development. Existing impacts within this segment of Snake River SR 1b include road infrastructure and commercial and residential development. Further impacts in this reach occur along the shorelines through motorized boat use and boat camping. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(a) The mixed-use project includes one or more water-dependent uses (b) Water-dependent commercial uses, as well as other water-oriented commercial uses, have preferential locations along the shoreline (c) The underlying zoning district permits residential uses together with commercial uses (d) Public access or ecological restoration is provided as a public benefit (4) Review criteria – The Shoreline Administrator shall use the following information in his or her review of all commercial development applications: (a) Whether there is a water-oriented aspect of the proposed commercial use or activity when it is located within 200 feet of the OHWM (b) Whether the proposed commercial use is consistent with the Shoreline Use and Modification Matrix (SMP XX.XX.200 (3)) (c) Whether the application has the ability to enhance compatibility with the shoreline environment and adjacent uses (d) Whether adequate provisions are made for public and private visual and physical shoreline access (e) Whether the application makes adequate provisions to prevent adverse environmental impacts and provide for shoreline ecological or critical area mitigation, where appropriate (5) Commercial development shall be designed and maintained in a manner compatible with the character and features of surrounding areas. Developments shall incorporate low-impact development techniques into new developments. Architectural and landscape elements shall be employed that recognize the river and lake environments. The Shoreline Administrator may prescribe and modify project dimensions, screening standards, setbacks, or operation intensities to achieve this purpose. (6) Restaurants and lodging facilities shall be oriented to provide views to the waterfront, when such view is available from the site. (7) Commercial uses shall provide for public access as a condition of approval, unless such public access is demonstrated by the proponent to be infeasible or inappropriate for the shoreline pursuant to SMP XX.XX.260, Public Access. (8) Commercial uses shall provide for suitable measures to rehabilitate and enhance the shoreline ecology as a condition of approval. (9) Non-water-oriented commercial uses shall not be allowed over water in any shoreline environment. (10) All commercial loading and service areas shall be located upland or away from the shoreline. Provisions shall be made to screen such areas with walls, fences, and landscaping and minimize aesthetic impacts. (11) The storage of potentially hazardous or dangerous substances or wastes is prohibited in the floodway or within 200 feet of the OHWM, whichever boundary extends farthest landward.	Wetland and riparian buffers will be applied to protect both riparian and upland habitat, water quality, and other functions (see Section 4.5. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as SMP provisions are applied, and protection and restoration actions are implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(12) Development shall be located, designed, and constructed in a manner that ensures no net loss of shoreline ecological functions and without adverse impacts on other preferred land uses and public access features. Dredging provisions (XX.XX.350) (1) Dredging (a) New dredging shall be permitted only where it is demonstrated that the proposed water-dependent or water-related uses will not result in ongoing adverse impacts to water quality, shoreline ecological functions, Fish and Wildlife Habitat Conservation Areas and other critical areas, flood holding capacity, natural fluvial processes, drainage and water circulation patterns, significant plant communities, prime agricultural land, and public access to shorelines. When such impacts are unavoidable, they shall be minimized and mitigated such that they result in no net loss of shoreline ecological functions. (b) Dredging and dredge disposal shall be prohibited on or in archaeological sites that are listed on the National Register of Historic Places and the Washington Heritage Register until such time that they have been reviewed and approved by the appropriate agency. (c) Dredging techniques that cause minimum dispersal and broadcast of bottom material shall be used, and only the amount of dredging necessary shall be permitted. (d) Dredging shall be permitted only: (i) To establish, expand, relocate or reconfigure navigation channels where needed to accommodate existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. (i) For navigation or navigational access (ii) In conjunction with a water-dependent use of waterbodies or adjacent shoreline areas (iii) As part of an approved stream or river rehabilitation or habitat improvement project (iv) In conjunction with a bridge, navigational structure, or wastewater treatment facility for which there is a documented public need and where other feasible sites or routes do not exist (iv)(v) Maintenance dredging of established navigation channels and basins restricted to maintaining previously dredged and/or existing authorized location, depth, and width. (e) Dredging for fill is prohibited except where the material is necessary for restoration of shoreline ecological functions. (f) New development siting and design avoids the need for new and maintenance dredging.	

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	
Snake River: Reach 2	Conservancy	Impaired	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Impaired	Potential for limited trail improvements as SR 129 provides access to river, ongoing maintenance and improvements to Greenbelt Trail and Swallows Nest Park	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within these areas include highway infrastructure, residential and recreational development and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	Shoreline Residential	Impaired	One (1) infill residential development in	Hydrology: Moderate Sediment: Low	See residential development provisions (XX.XX.440). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Shoreline Residential environment designation was applied to impacted areas suitable for future development

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
			SR 2a, south of Asotin	Water quality: Moderate Habitat: Moderate		or redevelopment based upon existing impairment of ecological functions. Existing impacts within these areas include highway infrastructure, residential and recreational development and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	High Intensity	Impaired	Ongoing maintenance and improvements to the marina and the golf course	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See dredging provisions (XX.XX.350). See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The High Intensity environment designation was applied to impacted areas that currently houses intensive development. Existing impacts within these areas include highway infrastructure, marina and resort development, upland golf course development, and heavily riprapped shorelines to protect against intensive motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
Snake River: Reach 3	Natural/ Conservancy	Partially functioning to Impaired	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned including enhancing/protecting riparian and off-channel habitat, BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Partially functioning to Impaired	Potential improvements to Chief Timothy Park; ongoing maintenance and improvements to existing facilities	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within these areas include an over-water bridge structure, boat launch, and camping development, as well as motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as SMP provisions are applied and restoration is implemented.
Snake River: Reach 4	Conservancy	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Functioning	Ongoing maintenance and improvements to the Offield Landing boat launch area	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within this area include highway infrastructure, parking and boat launch development, shoreline armoring with riprap, and motorized boat use. There is little riparian vegetation within the area. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
Snake River: Reach 5	Conservancy/ Natural/ Rural	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Partially functioning	Ongoing maintenance and improvements to the existing recreational facilities and boat launch areas	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within these areas include parking and boat launch development, shoreline armoring with riprap, upland trails, and motorized boat use. There is little riparian vegetation within the area. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	High Intensity	Partially functioning	Ongoing maintenance and improvements to the Lower Granite Dam area	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See dredging provisions (XX.XX.350). Industrial development provisions (XX.XX.390) (1) Water-dependent industrial development shall be given priority over non-water-dependent commercial uses within shoreline environments. Secondarily, water related and water-oriented uses shall be given priority over non-water-oriented commercial uses. (2) Non-water-oriented industrial uses shall be allowed if they can demonstrate one or more of the following: (a) The industrial use is part of a mixed-use project that includes water-dependent uses and provides a significant public benefit with respect to the objectives of the SMA (b) Navigability is severely limited at the proposed site, including opportunities for non-motorized boating or other water-oriented uses (c) The industrial use is physically separated from the shoreline by another property, public right-of-way, or levee (d) The industrial use is farther upland than 200 feet from the OHWM; therefore, a water-oriented use is not a viable option (3) Where industrial use is proposed for location on land in public ownership, public access should be required unless such public access is demonstrated by the proponent to be infeasible or inappropriate for the shoreline pursuant to SMP XX.XX.260, Public Access. (4) Industrial uses shall provide for suitable measures to rehabilitate and enhance the shoreline ecology as a condition of approval. (5) Non-water-oriented industrial uses shall not be allowed over water in any shoreline environment. (6) All industrial loading and service areas shall be located upland or away from the shoreline, except when loading services are water-dependent, such as barge facilities. Provisions shall be made to screen upland loading areas with walls, fences, and landscaping and to minimize aesthetic impacts. (7) The new storage of potentially hazardous or dangerous substances or wastes is prohibited in the floodway or within 200 feet of the OHWM, whichever boundary extends farthest landward. (8) Industrial development will be located, designed, or constructed in a manner that ensures no net loss of shoreline ecological functions and such that it does not have significant adverse impacts to other shoreline resources and values. See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The High Intensity environment designation was applied to existing, intensively developed areas of the shoreline. Impacts within these areas of Reach 5 are associated with shipping and grain elevator development and dam development. Limited riparian vegetation currently exists in these areas due to this development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Snake River: Reach 6	Natural/ Conservancy	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Functioning	Ongoing maintenance and improvements to the Little Goose Landing boat launch area and other recreation facilities	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within these areas include intensive development associated with the Lock and Dam State Airport, as well as parking and boat launch development, shoreline armoring with riprap, upland trails, and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
	High Intensity	Functioning	Ongoing maintenance and improvements to the Little Goose Dam area	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See dredging provisions (XX.XX.350). See industrial development provisions (XX.XX.390). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The High Intensity environment designation was applied to existing, intensively developed areas of the shoreline. Impacts within these areas of Reach 5 are associated with the Little Goose Dam development. Riparian areas are nonexistent within this area. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
Snake River: Reach 7	Natural/ Conservancy	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological functions.
	Recreation	Functioning	Ongoing maintenance and improvements to the existing recreational facilities	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within the Texas Rapids recreation area include camping and day-use park development, as well as parking and boat launch development, shoreline armoring

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						with riprap, informal upland trails, and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	High Intensity	Functioning	Potential commercial and industrial development of 160,000 square feet near Lyons Ferry Marina, east of SR 261	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See dredging provisions (XX.XX.350). See commercial development provisions (XX.XX.340). See industrial development provisions (XX.XX.390). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The High Intensity environment designation was applied to existing, intensively developed areas of the shoreline. Impacts within these areas of Reach 7 are associated with the Little Goose Dam development. Riparian areas are nonexistent within this area. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Additionally, environmental and water quality protection

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
City of Clarkston	Conservancy	Partially functioning	Maintenance of the greenbelt and trail	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Conservancy environment designation was applied to the shoreline segments currently supporting existing passive, low-impact recreation areas. Existing impacts include trail development and recreation use within the riparian buffer portion of the shoreline. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	Recreation	Partially functioning	Ongoing maintenance and improvements to the recreational facilities, such as bikeways, trails, and boat moorages	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas. Existing impacts within this shoreline segment include RV camping and day-use park development, as well as parking and boat launch development, shoreline armoring with riprap, and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	High Intensity	Partially functioning	Approximately 160,000 square feet of potential development on the Port of Clarkston property;	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See dredging provisions (XX.XX.350). See industrial development provisions (XX.XX.390). See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The High Intensity environment designation was applied to Port of Clarkston-managed shoreline areas suitable for future development or redevelopment based upon existing impairment of ecological functions and functional breaks from existing development.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
			improvements include recreational amenities at Granite Lake Park and along Port-owned streets at the Port Business Park			Existing impacts include over-water structures, vessel moorage, marina and RV camping development, upland industrial development, and motorized boat use. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological functions is anticipated as these provisions are strictly enforced, and protection and restoration actions are implemented.
	Shoreline Residential	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. The ESA Snake River Sockeye Recovery Plan (2014) lists several restoration efforts planned, including enhancing and protecting riparian and off-channel habitat and BMPs to improve water quality and decrease predation, resulting in a net gain to ecological function.
Mill Creek Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
North Fork Wenaha Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
Butte Creek Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
Third Creek Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
Crooked Creek Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
First Creek Forest Service Group	Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated.
Touchet River	Rural	Partially functioning to impaired	Four (4) new residential development unites, limited public access improvements can take place especially on the golf course	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within these areas include agricultural fields and grazing uses, road and utility river crossings, shoreline armoring protecting road and railroad infrastructure, and golf course and rural residential development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include improving road maintenance to reduce impairment through fines and pollution runoff. Additional plans include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
	Recreation	Partially functioning	Limited public access improvements in the park	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Recreation environment designation was applied to the shoreline segments currently supporting existing recreation areas of Lewis and Clark Trail State Park. Existing impacts within this shoreline segment include campground and day-use park development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include improving road maintenance to reduce impairment through fines and

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						pollution runoff. Additional plans include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
South Fork Touchet River	Conservancy/ Natural	Partially functioning	No new development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Additional floodplain restoration plans include placing wood to increase channel complexity. These restoration actions will result in a net gain in ecological function.
	Rural	Partially functioning to impaired	Seventeen (17) new residential developments on 1-acre parcels are anticipated; limited public access improvements along South Touchet River	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within this area include rural residential development, agricultural fields and development, and Touchet Road development, including three river crossings. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Additional restoration plans include riparian preservation and restoration efforts, removing cobble berms and replacing with wood structures to increase channel complexity, and implementing water quality BMPs at the Touchet Valley Golf Course. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
Wolf Creek Touchet River	Rural	Functioning to impaired	Two (2) new residential developments on 5-acre lot are anticipated; one (1) new agricultural/ residential development on a 40-acre parcel	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	Agricultural development provisions (XX.XX.300) (1) The SMP shall not require modification of or limit agricultural activities occurring on agricultural lands consistent with RCW 90.58.065. (2) For shoreline areas used for agriculture, new uses, activities, and development that are not existing and ongoing, agriculture shall be subject to the following requirements: (a) Such uses, activities, and development shall be allowed or permitted in a manner to ensure maintenance of ecological functions and be consistent with local land use plans. (b) If the new use, activity, or development is more intensive than the existing land use, no significant vegetation removal, development, or grading shall occur in the shoreline buffer without associated mitigation, except as necessary to accommodate low-intensity, water-dependent uses, and public access that sustains ecological functions. (c) New agricultural lands created by diking, draining, or filling wetlands or CMZs shall not be allowed. (3) A SDP shall be required for all agricultural developments not specifically exempted by the provisions of SMP XX.XX.770 (4)(e), except for agricultural developments in Shoreline Residential environment designation where a Shoreline Conditional Use Permit shall be required. (4) SMP provisions shall apply in the following cases: (a) New agricultural activities on land not meeting the definition of agricultural land (b) Expansion of agricultural activities on non-agricultural lands (c) Conversion of agricultural lands to other uses (d) Other development on agricultural land that does not meet the definition of agricultural activities (e) Agricultural development and uses not specifically exempted by the SMA	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within this area include rural residential development, agricultural fields and development, and Wolf Fork Road development, including five river crossings. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Unavoidable impacts from future development will be mitigated consistent with

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
					(5) New non-agricultural activities proposed on agricultural lands shall be consistent with the environment designation and Shoreline Use and Modification Matrix table (SMP XX.XX.200 (3)), as well as other applicable shoreline use standards (e.g., commercial, SMP XX.XX.340, or residential, SMP XX.XX.440. (6) Agricultural uses and development in support of agricultural uses shall be located and designed to ensure no net loss of ecological functions and no significant adverse impact on other shoreline resources and values. (7) New feedlots are prohibited in critical area buffers. Feedlots shall be located in such a manner as to prevent waste runoff from entering waterbodies or groundwater. (8) Agricultural uses and activities shall prevent and control erosion of soils and bank materials within shoreline areas. They shall minimize siltation, turbidity, pollution, and other forms of environmental degradation of watercourses and wetlands. (9) Agricultural chemicals shall be applied in a manner consistent with BMPs for agriculture and SMP XX.XX.250 (5). (10) When developing new agricultural uses, existing native vegetation, and existing non-native vegetation that is not invasive or noxious as defined by the Weed Boards in each of the Coalition's jurisdictions, shall not be disturbed or removed from riparian and wetland buffers established in this SMP. Agricultural development and activities shall conform to applicable state and federal policies and regulations. See residential development provisions (XX.XX.440). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
North Fork Touchet River	Rural	Partially functioning	Three (3) new residential developments on 5-acre lot are anticipated	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts within this area include rural residential, campground, and golf course development; agricultural fields and development; shoreline armoring; and North Touchet and Wolf Fork Road development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
						Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas. Additional restoration plans include upgrading irrigation diversion fish screens. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.
Tucannon River Reach 1	Conservancy/ Natural	Functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, implement upland water quality BMPs, and remove invasive species. Additional restoration efforts planned include LWD placement, decommissioning of parking areas, and setting back infrastructure from riparian areas. These restoration actions will result in a net gain in ecological function.
	Recreation	Functioning	No new development anticipated; potential of relocating campgrounds from the floodplain to restore the floodplain	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	No development is anticipated. Restoration efforts planned include potentially relocating Camp Wooten State Park campground outside of the floodplain, enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, implement upland water quality BMPs, and remove invasive species. Additional restoration efforts planned include LWD placement, riparian preservation BMPs, road removal, dike setbacks, and campground relocation outside of the floodplain. These restoration actions will result in a net gain in ecological function.
	Natural/ Conservancy	Partially functioning	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Tucannon River Reach 2				Habitat: Low		riparian areas, implement upland water quality BMPs, and remove invasive species. Additional restoration efforts planned include LWD placement, armor removal, and off-channel habitat creation. These restoration actions will result in a net gain in ecological function.
	Rural	Partially functioning	One (1) new residential/ agricultural development; potential for public viewing and access opportunities	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See agricultural development provisions (XX.XX.300). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Rural environment designation was applied to impacted areas suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts include rural residential, hatchery, and road development, as well as agricultural fields grazing uses. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, implement upland water quality BMPs, and remove invasive species. Additional restoration efforts planned include LWD placement, riparian preservation BMPs, level setbacks, infrastructure and building removal within the floodplain, and culvert improvements for fish passage. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Town of Starbuck	Conservancy/ Rural	Impaired	No development anticipated	Hydrology: Low Sediment: Low Water quality: Low Habitat: Low		No development is anticipated. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, implement upland water quality BMPs, and remove of invasive species. These restoration actions will result in a net gain in ecological function.
	Shoreline Residential	Impaired	One (1)new residential development	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See residential development provisions (XX.XX.440). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Shoreline Residential environment designation was applied to existing residential areas of the Town of Starbuck suitable for future development or redevelopment based upon existing impairment of ecological functions. Existing impacts include residential and industrial development, a levee, and a number of roads, including informal dirt roads. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Restoration efforts planned include enrolling landowners in the Conservation Reserve Enhancement Program to restore and protect riparian areas, implement upland water quality BMPs, and remove invasive species. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied and restoration is implemented.

Location	Environment Designations	Level of Existing Function	Types of Anticipated Development	Degree of Impact to Ecological Functions	Provisions[2] to Address Risk	Future Performance/Net Effect
Panjab Creek	Conservancy	Functioning	Some future improvements may take place in the camping area	Hydrology: Moderate Sediment: Low Water quality: Moderate Habitat: Moderate	See recreational development provisions (XX.XX.430). See critical areas general provisions and mitigation requirements (XX.XX.500 and XX.XX.510).	The Conservancy environment designation was applied to existing shoreline segments used for primitive camping and passive recreation uses. Existing impacts within this area include fairly minimal campground development. Impacts to remaining ecological functions in this reach will be avoided, minimized, and mitigated per the SMP provisions described in the Provisions to Address Risk column. Wetland buffers will be applied based upon wetland type and land use intensity to protect wetland functions. Riparian buffers will be applied to protect shoreline functions from future development (see Section 4.5). Additionally, environmental and water quality protection and vegetation conservation provisions will be applied to protect shoreline functions from future development. Unavoidable impacts from future development will be mitigated consistent with mitigation sequencing provisions. Mitigation for unavoidable impacts will be applied at the parcel level. No net loss of ecological function is anticipated as these provisions are applied.

Notes:
BMP = best management practice
CMZ = channel migration zone
DNR = Washington State Department of Natural Resources
Ecology = Washington State Department of Ecology
ESA = Endangered Species Act
LWD = large woody debris
NOAA Fisheries = National Marine Fisheries Service
OHWM = ordinary high water mark
RCW = Revised Code of Washington
SDP = Substantial Development Permit
SMA = Shoreline Management Act
SMP = Shoreline Master Program
SR = subreach
USACE = U.S. Army Corps of Engineers
WA = Washington
WDFW = Washington Department of Fish and Wildlife

As described in Table 6, the SMP will protect the baseline ecological functions within the Coalition. The features that will provide this protection include the SMP environment designations and general requirements, shoreline modification and use provisions, and Restoration Plan (Anchor QEA 2016). The SMP is expected to accommodate reasonable foreseeable shoreline development while affording these protections and restoration initiatives throughout the next 20 years. All of these provisions will result in no net loss of shoreline ecological function in the City of Clarkston and may actually lead to an improvement or gain of ecological function over time.

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